Accept no imitations – if you own a CPC the only magazine you need is...

AMSTRAD ACTION

ISSUE No.109
OCTOBER 1994
£2.95

ALERT! STORMIN' SOFTWARE ON THE COVERTAPE

TURBO THE TORTOISE

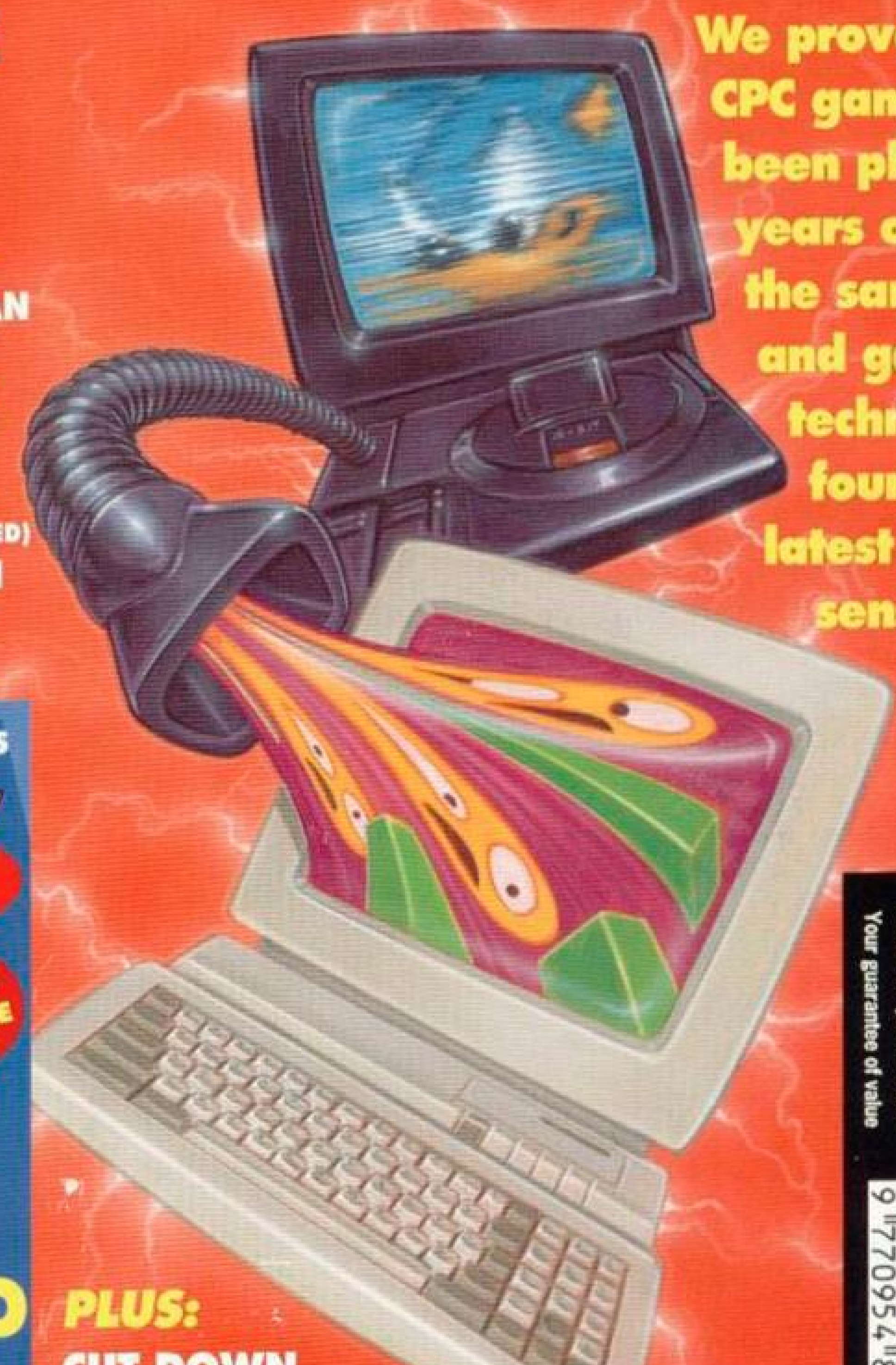
FORGET NINJA TURTLES – THIS DUDE'S THE COOLEST CRUSTACEAN

CROSSWORD COMPILER

(DISK USERS ONLY – TRANSFER ROUTINE INCLUDED)
CREATE AND SOLVE YOUR OWN CROSSWORDS THE EASY WAY

TRENDSETTER!

We prove how the CPC games you've been playing for years originated the same ideas and gameplay techniques found in the latest console sensations.





PLUS:
CUT DOWN TO SIZE: how compacting can help you get more on a disc.

future PUBLISHING
NOT an official Amstrad publication
Your guarantee of value

AND DON'T MISS: TOP TECHNICAL ADVICE ● TONS OF GAME CHEATS ● PD REVIEWS

NOW A TOTAL MOUSE/ GRAPHICS PACKAGE FOR YOUR AMSTRAD AT A TRULY UNBEATABLE PRICE!!



MOUSE SYSTEM

COMPLETE WITH

NOW ONLY £34.99

- This Amstrad Mouse is a high resolution two button mouse featuring optical counting, teflon guides, microswitches, rubber coated ball and high quality interface.
- When combined with OCP Advanced Art Studio this graphics package is quite simply the best system available. The features are unmatched...
- Create an image - shrink it, expand it, move it, rotate it, copy it, colour it, etc., etc.
- Spray patterns or shades, make elastic lines - stretch and manipulate shapes.
- Zoom in to add detail in fine mode.
- Pulldown/Icon driven menus for ease of use
- Mouse operation, plus joystick and keyboard control.
- 16 pens, 8 sprays, 16 brushes - so flexible anyone can create superb graphics easily.
- Full cut and paste facilities plus excellent printer support.

TOTAL PACKAGE INCLUDES MOUSE/ MOUSE MAT/HOLDER, ATTRACTIVELY STYLED INTERFACE AND OCP ADVANCED ART STUDIO

FREE!

MOUSE MAT AND MOUSE HOLDER (WORTH £12.99) WITH EACH PACKAGE

TAPE OR DISK FOR 464 OR 6128
(PLEASE STATE WHICH REQUIRED)
NB 464 NEEDS DK'TRONICS 64K RAM PACK.
464+ NEEDS ADAPTOR (£9.99)



LC 100 COLOUR PRINTER PACKAGE

NOW YOU CAN PRINT OUT YOUR PICTURES IN FULL COLOUR!

- The Star LC100 Colour Printer not only prints in Near Letter Quality for your regular jobs but also prints out your pictures from Art Studio, etc., in fantastic colour!
- LC100 is a full Centronics printer so it works with other computers (Amiga, ST, PC etc.)
- Made possible by Datel's unique colour printer driver - now you can have a hardcopy in up to 16 colours!!
- No more to buy.

PACKAGE INCLUDES STAR LC100 COLOUR PRINTER RRP £199.00
CENTRONICS PRINTER LEAD RRP £12.99
DATEL COLOUR PRINTER DRIVER SOFTWARE RRP £19.99
NORMALLY £231.98
COMPLETE PACKAGE NOW ONLY £199.00

COLOUR PRINTER DRIVER AVAILABLE SEPARATELY ONLY £19.99

- If you already have an LC10, LC100 or LC200 Colour Printer we can supply the Driver separately.

dktronics



- Simple plug in memory expansion gives instant extra memory.
- Features bank switching software for easy use by the programmer or for use as a data storage area.
- Ideal for use with the CPM 2.2 etc.
- The software also features some extra BASIC commands.
- 64K unit expands 464 to 128K.
- 64K unit brings 464 up to CPC 6128 memory configuration making a much larger software base available. Will work straight off with many programs designed for this unit (including OCP Art Studio -see Ad.).
- Bank switching done automatically by software (cassette 464).

64K MEMORY EXPANSION

NOW ONLY £29.99 64K FOR 464

.464+ NEEDS ADAPTOR (£9.99)

DATEL ELECTRONICS

24 HOUR MAIL ORDER HOTLINE

0782 744707

FAX 0782 744292

Send Cheques, Postal Orders or credit card details to:-

DATEL ELECTRONICS LTD.
GOVAN ROAD,
FENTON INDUSTRIAL ESTATE,
FENTON, STOKE-ON-TRENT,
ST4 2RS, ENGLAND.

OR CALL AT OURLONDON SHOP:- DATEL ELECTRONICS 222 TOTTENHAM COURT RD, LONDON W1 TEL: 071 580 6460

AMSTRAD ACTION

OCTOBER
ISSUE 109

Line-up

REGULARS

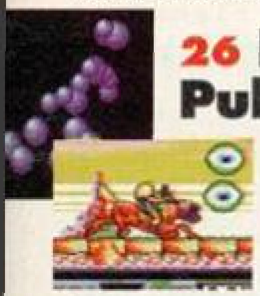
SERIOUS STUFF





LEISURE ZONE







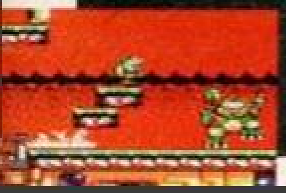


Check out what's on this month's covertape...



Turbo The Tortoise

Forget Teenage Mutant Turtles, the greatest crustacean superstar has to be Turbo. In this superb slice of platformer action he travels through various worlds, battling off baddies in true computer game style (ie, bouncing on their bonces).



Crossword Compiler

For disc users only, this great little proggie comes with its own disc transfer system. It'll let you design crossword grids, find words to fill them with and let you print the whole lot out. It even helps you cheat when filling in other people's crosswords as well.



TURN TO PAGE 10 FOR FULL DETAILS

Amscene

YOU HAVE CONNECTED TO THE CPC NEWS NET... PREPARE TO DOWNLOAD...

..FOR BETTER OR FOR WORSE?...

An initial reaction of outrage from Irish CPC users to the new, long-awaited UK disczine, *Better Than Life* (BTL), has cooled as two leading members from both factions have discussed ways of bringing hostilities to an end and hopefully forging new links between Irish and UK CPC users.

The original furore began when members of the Irish CPC fraternity read articles in BTL slating various leading members of their scene, including *AA*'s PD writer, Keith Woods and Derek Hyland. Many European CPC users also felt that the 'zine was biased against them.



Causing a bit of a stir.

Because one of the 'zine's main contributors was Richard Fairhurst, also an AA writer, there was talk among Irish CPC users of a fax and boycott campaign directed towards us. However, Keith Woods stepped in and managed to convince them that the best way to fight back was by, "beating them at their own game."

The plan was hatched to produce a massive 100-page fanzine that would not be full of, "slagging off", but, "reviews, news and features that would appeal to all CPC users."

And then came the surprise breakthrough. Following a long international phone call, Richard Fairhurst and Keith Woods managed to patch up quite a few old wounds. The result – Richard has agreed not only to contribute to the Irish 'zine, but also to let certain Irish PD libraries distribute his PD software.

"The reaction to *BTL* in Britain has been very good, " says Richard. "But it would be a shame if the seven or so 'controversial' articles means that people outside the UK overlook the other 30 or so good features on things like programming. So this is a sort of a peace offering."

We review *BTL* on page 33.

...PRISM BREAK FOR THE CPC...

Long-established Spectrum PD library, Prism PD, has moved into the CPC market. They will be offering software on both tape and disk, plus, in a couple of months, 3.5-inch disk. Prices are £1.50 for a disc of PD plus 30p for each additional disk and a fifth disc for free. Tape software is £1.50 for £12 titles. All tapes/discs must be supplied.

Prism is the only 8-bit PD library to belong to PSD (Professional Standards of Distribution) a watchdog body set up to keep check on Amiga and PC PD libraries, so you can be pretty sure you'll get good service.

The library also has its own 'zine, *PD Power*, which costs £1.70 for members (£2.20 for non members).

Send a disc plus SAE to Prism PD, 13 Rodney Close, Rugby CV22 7HJ for a catalogue. A digitising service is also available.

...LOSS OF CONTACT...

Amstrad Contact has unfortunately closed down because founder member and guru Dave Muggeridge no longer has the time to run the club. All members will receive refunds. For details phone 0403 753348.

...FES-TIVAL TIME...

It's nearly here – the computer show you cannot afford to miss, the Future Entertainment Show, Earl's Court in London from 26th-30th October.

If you're at all serious about computing there'll be loads there to get you salivating. Because this time around there's going to lots more to get involved in, and we don't just mean playing games.

Whether you use your computer for art, music, communications or programming, all the latest developments in these fields are going to be on display and available for you to have a test drive yourself.

There's a huge dealer-area where you'll be able to get an excellent price on virtually any piece of hardware you could be after, including great bargains on printers.

Future Publishing's magazines will be organising special events in the three theatre areas at the show.



There will be discussions, demos and debates featuring some of the interactive entertainment industry's leading figures. There'll be items like expert panels/joystick juries reviewing products live, discussions about the future of interactive entertainment and exclusive premiers of many of the biggest products of 1995.

There'll be a showguide on sale on the door (for £2) containing a full list of all exhibitors, a map of where everything is and (this is the best bit) a set of vouchers offering discounts off gear that you can buy at the show. You can also order one through the hotline.

So order your tickets now because they're £6 in advance and £7 on the door. The ticket hotline is ☎ 0369 4235.

...8-BIT FAIR..

The second best computer show of the year (after the FES, of course) looks set to be an 8-bit Computer Fair that's being planned for mid-October in Cheshire by a new company called SF Productions (SF stands for 64, but don't hold that against them).

At the moment details are still to be finalised, but SF are hoping to have leading names from the CPC, C64 and Spectrum scenes displaying all their latest hardware and software. Entrance for visitors will be free, while exhibitors will need to pay £3.50 a stall.

If you're interested in attending or exhibiting contact LS Bevington, 348 Station Road, Winsford, Cheshire, CW7 3DG.

...THE 'GLADES FOR GAMES...

Everglade have just bought in stocks of loads of classic CPC games, including titles like *Prehistorik 2*, *Indiana Jones and the Fate of Atlantis*, *Flimbo's Quest* and *Turrican*. Prices start at £3.95. For a full catalogue send a large SAE to Everglade, 68 Telford Street, Inverness, Scotland IV3 5LS.

Bad press?



At last – Ollie's found a new picture of *AA*'s editor, Dave.

Every cloud has a silver lining, and in the case of *Better Than Life* it looks like the cloud won't be given a chance to turn into a storm.

I was about to write this editorial bemoaning how *Better Than Life* – despite it's undeniably impressive presentation and some really quite well written features – was spoilt by a few articles which seemed to be the epitome of everything that's wrong with the CPC scene at the moment – they're vindictive and pointless (well, what could expect from a team of writers who include a couple of names familiar from the notorious Quantum Computing?).

But matters have moved on swiftly, and it looks like there could be end to the hostilities between the Irish and British CPC contingents, which would be a relief. As reported in Amscene, Richard Fairhurst and Keith Woods have actually been in talks which have ended up with much better links being made between the two factions, and Richard actually agreeing to write some articles for Keith's fanzine.

I know it all sounds a bit like some hideous Disney-style pat philosophy, but I think this really proves that if people just sit down and talk over their differences, the results can only be positive. With everybody on the scene pulling together we really can start to produce quality software, hardware and, yes, even disczines for the CPC. Is this the dawn of a new age of peace and understanding? Well, as long as we can avoid throwing up, I certainly hope so. Dave

Reaction

Send your letters to: Reaction, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW

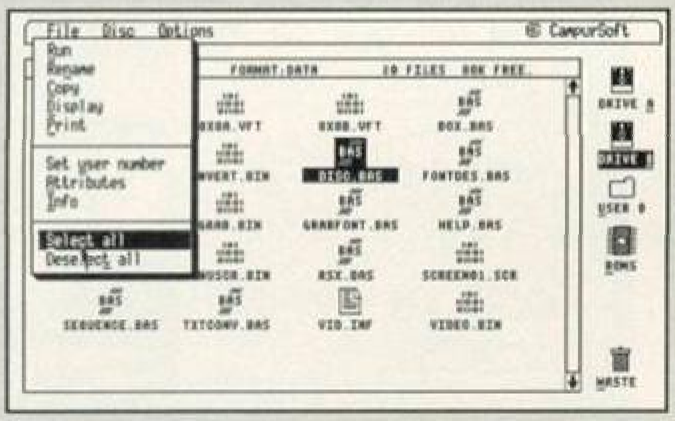
Satisfied

I thought it was about time I wrote and congratulated you and your team for the excellent magazine. I am an ex-Sharp MZ80k fanatic, but sold up in 1988. If only your level of support had been available for the Sharp. The CPC6128 is far superior, more user-friendly and adaptable in my opinion, but is only as good as the software available. You've cracked it in one go and with a magazine.

May I just put in a plug for OJ Software and Campursoft? Great service and back-up, both of them. They even call you back, at night if needs be in the case of Peter Campbell. They deserve the business so please use them.

After a review in a back issue of *AA* I decided to try Quantum, but they were just very bad news (I'm trying to be polite) full of patter and empty promises. It cost me to stop the cheque but at least I didn't lose everything.

ParaDOS and *DES* are brilliant, but *DES* would corrupt and not respond or operate fully with *ParaDOS*. Solution: put *ParaDOS* into ROM slot seven and install a ROM off switch. When it's switched off you have a full 800k available per 3.5-inch A and B drive. When switched on *ROMDOS XL* takes over and you can use *DES* and *MicroDesign* without complaint (*MicroDesign* doesn't like ParaDOS either) but 800k is available only on drive B. So don't junk your old ROMs in order to install *ParaDOS*; they are still useful.



Revealed: how to make *DES* and *ParaDOS* compatible.

Just one, very small gripe. Please realise that not just school kids read your mag. I am 43 years old but not quite an old fogie yet. I find some of the comments difficult to grasp, reminiscent of the *Beano*, I think.
Michael A Brown, West Bromwich.

Well wicked letter. Totally sorted and happ'nin'. You've got the vibes for sure, man. And we dig that great *DES* advice, daddio. Real cool. Stay cookin'. What do you mean, what are we on about? **Dave**

Idiotic

Hello. I really enjoyed that *Speech* program you gave away with issue... ah, well I can't remember details like that but it was really quite fun making it swear.

I'll tell you what, if you list them and print this, my fifth letter, I will subscribe and get a friend to subscribe too (*bribery? I like that – Dave*). I already have *Ikari Warriors*, so it was a bit of a sod when I saw it on the covertape, but at least it loads a lot quicker.

I have a couple of questions for you:

1 What is the difference between a Multiface and a Multiface 2?
2 What's the worst game Simon's played?
3 What happened to Adventure PD?
4 Is the code name for the 6128 IDIOT. If it is, what does it stand for?
5 I think Thomas Lowell who wrote that poem in AA106 should get a prize.
6 Does Simon ever have problems with nits (no offence)?
7 I did a survey in Chudleigh and 80 per cent of *AA* readers would like to see Dark Side on the covertape.
James Moyse, Chudleigh, Devon

1 Was there ever a Multiface 1? Or was it just a legend? It's one of life's great mysteries. The Mutliface 2 has had a few mods over the years, such as the ability to hide itself by hitting the STOP button, then returning to BASIC, shortly after power up. That's one modification, but it was added after the name change.



Amscene Directory

PD Libraries

Amsof
Lissanly, Cloyne, Middleton, Ireland
Large range of European stuff.

Basic PD
3 Beacon Lane, Whipton, Exeter, Devon, EX4 8BD
New cassette only library. 15p per side of C15 tape (95p if you don't provide a tape)

Braysoft
2 St Margaret's Road, Hayling Island, Hants, PO11 9BP.
3-inch disks only.

Colrob PD
9 Aviemore Road, Hemlington, Middlesborough
New tape-only PD library

Demon
47 Hilton Avenue, Hall Green, Birmingham B28 OPE
3.5-inch discs available.

Disk PD
Lower Dexbeer, Dexbeer, Holsworthy, Devon EX22 7LA.
☎ 0288 82348
Bet you can't guess what this lot specialise in.

GD PD
49 Woodville, Barnstaple, Devon EX31 2HL

Image PD
Darren Dodds, 15 Elmwood Drive, Ponteland, Newcastle-Upon-Tyne NE20 9QQ
Also provides a digitising service.

MPD Software
Martin Elliot, 23 Nobes Avenue, Bridgeway, Gosport, Hampshire PO13 OHS.

PD Fun
41 Michaelgate, Kirkby Lonsdale, Via Carnforth, Lancs LA6 2BE
A policy of 'no serious software'.

Penguin Software
62 Nursery Road, Knaphill, Woking, Surrey, GU21 2NW
Simon Greer has taken over from the late David Carter to re-open this legendary company. For a free copy of the new Penguin Software Disc Catalogue send a blank disc and an SAE or a blank disc and 80p.

Prism PD
13 Rodney Close, Rugby, CV22 7HJ
☎ 0788 817473
The mega-successful Speccy PD library now moves into the CPC scene. Software on both tape and disc (3.5-inch disc availability soon). See the news story on page five.

Sheepsoft
Paul Fairman, 298c Holton Road, Barry, South Wales, CF6 6HW.

Sleepwalker PD
Disk software: Joe Moulding, 9 Meeting House Lane, Balsall Common, Nr Coventry CV7 7FX

Tape PD
Paul Sillifant, Lower Dexbeer, Dexbeer, Holsworthy, Devon EX22 7LA.
Also get in touch if you're into PBMs.

The Vault
43 Windfield Gardens, Clybaun Road, Galway, Ireland.
☎ 010 353 91 28204
Lots of European software.

Ultimate PD
26 Woodside Road, Irby, Wirral, Merseyside L61 4UL
Specialises in 3-inch disk and tapes.

Fanzines

Amszine
Gayton, Laneside Road, New Mills, Via Stockport, SK12 4LU
☎ 0663 744863

Better Than Life
2 Trent Road, Oakham, Rutland LE15 6HF.
Reviewed on page25.

The Eliminator
14 Station Road, Riccall, York, North Yorkshire YO4 6QJ

CPC User
☎ 0329 234291
The UAUG's fanzine.

2 Probably the time he played Karpov and opened with the Schneider offensive, then went on to lose in five moves. Ah, you mean CPC games? In that case either *Count Duckula 2* or that *Panza Boxing* cart thing, both of which are truly appalling.

3 It closed down and donated its entire stock to Adam Shade's Dartsma PD, 47 Kidd Place, Charlton, London SE78HP.

4 Almost, but not quite. Here's a run down of those Amstrad development nicknames that should make things clear:

464=Arnold
664=IDIOT (Insert Disk Instead Of Tape)
6128=BIG IDIOT (It's a bit bigger RAM-wise)
PCW=Joyce (Alan Sugar's secretary at the time – make of that what you will).

5 Don't ever apply for a job on *The Times Literary Supplement*, okay.

6 Only the ones that ask him daft questions.

7 From which we can work out that there are at least five CPCers in Chudliegh. **Dave**

Short Sharp Shocks

● **Got any cheats for *World Soccer*?**
Stephen Fraser, Dunfermline

Jürgen Klinsmann of Germany is one of the worst according to Ollie. **Dave**

● **What is tape-based PD like?**
Gareth Little, Peterhead

Pretty much what you might expect – slower to load and generally smaller and less impressive (unless it's disc PD that's been saved to tape). A lot of it barely raises itself above above type-ins level, according to Simon. Which is a shame because there's no reason why there shouldn't be more really good tape PD. And, in fact, things are improving and the new breed of tape-only PD libraries proves a support for the format which will hopefully raise the general standard. **Dave**

● **I think *Nebulus* is a cross between a pig, a kangaroo and a tin of green Dulux paint.**
John Fee, Dundalk, Eire.

Next issue, we exclusively reveal *Nebulus'* parentage in true soap-opera style. **Dave**

Exasperated

As Mr Spock would have put it, "It's illogical Captain." And yes, indeed it is, illogical. Why, why, why do you insist upon having a covertape?

I know this letter will resurrect some long-buried disputes, I know it may be scorned, battered and generally abused, and it may even start a civil war. But in these hardened financial times you have still chosen to make a page cut over dropping the covertape. The covertape is not a necessity. Surely it is the contents of the magazine which are more important, or would the Hairy Happening have nothing to do in his spare time if you dropped the cassette?

If you drop the cassette it would create less hassle for your good selves and would enable the cash, formerly used to fund the tape, to become available to fund the return of those missing pages.

Whatever decision you make, I will assure you that I will remain with the magazine right until the end. All the best and thanks for the last decade.
George Eaton, Tarporley, Cheshire

Believe me, Simon would like nothing better than for us to drop the cover tape – it is an unbelievable hassle to put together, made even more complicated by the fact that there are so many different varieties of CPC – not even all 464 Pluses are the same. So no, we don't carry on the cover cassette because we love doing it, you can sure of that.

But I reckon it's about time we put this to the vote. Do you want us to abandon the covertape and have more pages? Or do you still buy the mag mainly for the software we give away? Most importantly, would you stop buying the magazine if the covertape was dropped? Don't write in about this one, though, because we need a large amount of feedback. So what's going to happen instead is this: Thursday 29th September is going to be voting day. Phone up the *AA* office between 10am and 5.30pm on 0225 442244 and register your vote. **Dave**



Should we scrap the covertape?

Hammy

I want to make a SERIOUS complaint. In *AA*107 there was an article called Bizarre in which it was claimed that radio

CPC Undercover
37 Trimingham Drive, Brandlesholme, Bury, Lancashire
A technically-minded fanzine that's also on the look out for writers.

Ultra Games
20 Lancaster Terrace, Chester-Le-Street, Co Durham, DH3 3NW
Cassette-based multi-format fanzine.

User Groups

Amstrad Contact
☎ 0403 753348
Sussex-based group that also runs a technical helpline for CPC users.

UAUG (United Amstrad User Group)
☎ 0329 234291
An *AA*-recommended user group.

WACCI
☎ 0602 725108
They're fab. Give 'em a ring.

Independent Software Companies

Campursoft
☎ 041 554 4735
You name it, they do it, really.

DMP Software
89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL

New Age Software
☎ 01049-711-4201920
Responsible for *Zap'T'Balls*, the excellent *Soundtrakker*, and, hopefully, a (hopefully) few more titles pretty soon.

Radical Software
☎ 081 856 8402
Still producing top-quality software for the CPC.

Reveal Computer Software
PO Box 1818, Redditch B97 4AZ
☎ 0527 597707
This lot wrote *Music Maker* (which was reviewed a couple of issues back) and currently have *Professional Cribbage*, *Dino Quiz* and *Memory Exerciser* in production.

SD Microsystems
☎ 0760 720381
Specialists in just about every kind of business and applications software.

Sentinel Software
☎ 081 876 7032
Suppliers of selected STS titles and a few original products.

Siren Software
☎ 061 724 7572

Hardware

Datel ☎ 0782 744707
The place to go for mice, printers, memory expansions, all that sort of stuff.

Microform Fax: 0772 703131
Drives, upgrades, disks, all sort of stuff.

WAVE ☎ 0229 829109
Suppliers of loadsa good stuff.

Software suppliers

OJ Software ☎ 0257 421915
Fast friendly service, the ad says. And it's right. An impressively wide variety of software on offer.

Software Cavern
☎ 0628 891101
Probably the largest selection of CPC software for sale in the known universe.

Everglade
☎ 0463 240168
68 Telford Street, Inverness, Scotland IV3 5LS
A new company in Inverness.

STS
298 Holton Road, Top Floor, Barry, South Wales CF6 6HW
They're back – and selling *SoftLok* at £14.99.

Tronics North
☎ 010 6177 253 766
PO Box 7419, Garbutt, Queensland Australia, 4814.
The largest supplier of software and CPC bits'n'pieces in the southern hemisphere.

WoW
78 Radipole Lane, Weymouth, Dorset, DT4 9RS.
Specialists in adventures.

Mail Order

Trading Post ☎ 0952 462135
They're offering loads of cut-price cartridges at the moment.

Trojan ☎ 0554 777993
Great for cartridge and lightgun stuff.

Wizard Games ☎ 0723 376586
Games on every imaginable format.

Upgrades and repairs

HEC
47-49 Railway Road, Leigh, Lancashire WN7 4AA.
☎ 0942 261866
They've been around for ages, guarantee a fast turn-around, and must be a much better bet than Avatar. Give 'em a go.

hams, "are weird people from the word go." I'd just like to make a point or three.
1 **WRONG!**
2 **I am a radio-type person. I am not rich, demented, deranged or conversant in conversational binary.**
3 **You could at least give the correct name for this 6128 use, ie, PACKET.**
4 **GKQ81XXY is not a valid UK call sign.**
5 **I haven't spent the amount you mentioned on radio equipment.**

That leaves two points: if Simon writes such rubbish again, I will be severely disappointed and will attack his hair with a Trim'n'Edge. Oh, and thanks for a great mag.
AJ Clayton, Walsall
PS Please print this letter as a parcel bomb often offends.

And there I was thinking that Radio Hams were over-the-top actors on *The Archers*. Ah well, we live and learn. **Dave**

Cheated

On phoning you today to subscribe to your magazine, I was informed that I could not have the option of a disc. It said quite plainly in this month's *AA* that I could have the choice of tape or disc.

Why???

You are trying to get people to phone you under false pretenses by advertising the disc option, when you have no intention of supplying discs.

I am most disappointed in your underhand approach in drumming up more business for yourselves and thinking nothing of your customers.

From a very dissatisfied customer.
R Hamer, Dyfed



Would you be embarrassed by a cover like this?

I must sincerely apologise for the whole disc subscription offer debacle, but please believe me, in no way was it an underhand tactic, and we did have every intention of supplying the discs when the magazine carrying the offer was being written. Unfortunately, between the magazine going to press and being published, we discovered owing to the world shortage of 3-inch discs, and the fact the only ones being produced these days are of very dubious quality, it was going to cost us over four times as much to supply people with discs as we had originally been quoted. This, to be honest, was something which we couldn't afford.

So, we had to write back to all new subscribers offering them the chance to cancel their orders. And once we found out this was the case, no further cheques were paid into our accounts until we had heard back from subscribers.

Once again, I must emphasise that we are sincerely sorry about the whole business, but our intention was to give readers a better service; it was not a scam. The best laid plans of mice and magazines... **Dave**

EMBARRASSED

I've been reading *AA* since issue 16 and have some things to say.
1 **I think the cover last month was good. I didn't have to carry my *AA* around rolled up as I've had to do a few times in the past.**
2 **I am a bit annoyed about the new tape covers because they look a bit cheap, but at least they aren't packaged like *AA28*'s (ripped cover).**
3 **Your mag has got like a leaflet, but the quality factor is nearly 100 per cent.**
4 **Keep up the good cover tapes. Have you considered putting *Red LED*, *Revolution* and *Mag Max* on them?**
5 **Now that about four commercial games will be released in a year, how about rereviewing about three games from each issue, starting with issue one?**
6 **Are there any good CPC emulators available for the PC?**
7 **I was impressed with the Bizarre section last month, but did you know that about seven years ago in Slough there was a privately-owned telephone company that used CPCs to run their exchanges? They even offered itemised phone bills which BT couldn't do with its technology back then.**
8 **LET *AMSTRAD ACTION* CONTINUE FOREVER!**
R Jones, Fareham.

1 That's a back-handed compliment if ever I heard one.
2 But these new tape covers are more environmentally friendly.
3 Never mind the width feel the quality, that's our motto.
4 We have now.
5 There is a 'Classic Games' series in the pipeline, in which we'll do more than just rereview the games; we'll put them in their socio-historical perspective. Whatever that means.
6 There are a couple available from Wave Electronics (☎ 0229 870000), and we also reviewed a PD CPC emulator last issue (hey – that sounds like another no-to-be-missed chance to plug our wondrous Back Issues ordering service on page 12).
7 Great stuff. Anybody else got any other stories of CPCs being put to strange uses?
8 That's really up to you lot. We'll keep providing the goods as long you keep buying them. Which we hope will be for some time to come. **Dave**

AMSTRAD ACTION

Issue 109, October 1994
Future Publishing Limited, 30 Monmouth Street, Bath, BA1 2BW
Tel: 0225 442244
Fax: 0225 446019

Editor Dave Golder
Art Editor Ollie Alderton
Contributors Simon Forrester, Richard Fairhurst, Debby Howard, Lee Rouane, David Crookes, Angela Cook, Rob Buckley, Keith Woods and Richard Wildey
Cover Paul Kidby

Ad Sales Executive Robert Bennett
Publisher Jim Douglas
Group publisher Greg Ingham

Production Lisa Read
Lino and Scanning Simon Chittenden, Jon Moore, Chris Stocker, Simon Windsor, Jason Titley, Mark Gover, Brian Hook
Ad Design Cherry Coad ☎ 0225 442244
Circulation Manager Jon Bickley, ☎ 0225 442244

CONTACTING AMSTRAD ACTION
Amstrad Action can only take reader calls on Wednesdays and Thursdays on 0225 442244. At all other times you will get an answerphone telling you pretty much what it says here, so save your phone bill, okay. Please note also that this is not a technical helpline! There is no-one in the office who can help you with technical queries. Sorry. Please write to Techy Forum instead.

Printed in the UK

Future PUBLISHING
'Your guarantee of value'

Home of Britain's finest magazines.
Commodore Format • PCW Plus • PC Gamer • PC Plus • PC Answers • PC Format • Amiga Format • ST Format • Sega Power • TOTAL! • Amiga Power • Amiga Shopper • Super Play • Games Master • Mac Format • Edge • Future Music • .Net • Ultimate Future Games... and also Classic CD • Mountain Biking UK • Cycling Plus • Needlecraft • Cross-Stitch Collection • Caravan Plus • Simply Crafts.

AA110 on sale: Thursday 20th October

ABC 15,168
Member of the Audit Bureau of Circulation Jul '93 - Jan '94

IF YOU LOVE AA THEN STICK WITH Future PUBLISHING

Whatever other computer you use, and whatever you use it for, you can bet that Future Publishing has got the best magazines to suit your needs...

AMIGA MAGS

AMIGA FORMAT

Amiga Format issue 63 (the October issue) is another stonking issue of the UK's biggest computer magazine! 164 lovingly hand-crafted pages full of Amiga news, reviews and features. This month we cover DTP, with £100 program *PageSetter 2* on the coverdisk, and a huge 7-page feature on Amiga DTP. And *AF* has the first full review of *Amiga Theme Park*! Got an Amiga? Get Formatted. **£3.95 with TWO coverdisks**

AMIGA SHOPPER

The October issue of *Amiga Shopper* is jolly fab. Our comprehensive supertest wil tell you everything you'll ever need to know about expanding your A1200. Plus we give you the full lowdown on how to program in Assembler and the first instalment in our new series on how to write your own chess program. Hurrah! **£2.50**

AMIGA POWER

The tenth Amiga Power of 1994 is (toot toot toot tooooot...) a THREE DISK SPECIAL! With demos of *Theme Park, Alien Breed 2: Tower Assault, Bubble and Squeak* and *Ruff 'n' Tumble*, there was simply too much to fit onto two disks, so we've had to stick on an extra one. And! Inside the magazine, an exclusive review of the incredible *Super Stardust*. **£3.95 with THREE coverdisks**

CONSOLE MAGS

GAMESMASTER

October's *Gamesmaster* is a *Lion King* extravaganza, with a totally in-depth look at the game on SNES and Mega Drive, plus a FREE *Lion King* badge and poster. We've also got the first screen shots of *Sonic and Knuckles*, a big review of *Urban Strike*, one of the best 3D0 titles yet, and a look at how CD interactive movies are made. You can't afford to miss it. **£2.25**

SEGA POWER

The October issue of *Sega Power* is swelling with an oozing stuffing of stunningly erudite, critically caustic, ultra-topical Sega-related stuff (as ever). Exclusive reviews of *Urban Strike* and *Taz 2*, a massive guide to *Super Streetfighter 2*, the making of a game (in Hong Kong, no less, none of that 'software house down the road nonsense for us) and an update on the progress of wonder-machine, Saturn. It's **£2.50**. It's out on Thursday, 1st September. BUY IT!

TOTAL!

October's TOTAL will feature a six-page feature on the brilliant new *Super Return Of The Jedi*. As well as this we're giving away a free *Super Street Fighter 2* sticker album and stickers. There's also more news, previews and reviews than you can wave a stick at as well as an obscenely large tips section featuring three player's guides. Phwoar! **£2.50**

SUPER PLAY

Want to find out about the best role-playing game ever to hit a console? Then the October issue of *Super Play*'s the mag you need. Plus, a guide to the anime scene. *Mortal Kombat 2* hits the SNES full-bloodedly! Super Street Fighter 2 gets the full guide treatment! It's all in *Super Play*. **£2.50**

ST FORMAT — BRITAINS BEST-SELLING ST MAGAZINE

GOING FOR GOLD! Each and every FORMAT Gold winner ever rounded up, re-rated and located – so you can get the very best games, applications, utilities and hardware for your machine! If you've got an ST then you owe it to yourself to get hold of October's *ST FORMAT*. Henry Kelly would approve! **£3.50 plus coverdisk**

CD-ROM Today

In the October issue of Future's smash hit, revolutionary CD ROM mag... Woodstock on CD-ROM, multimedia authoring packages, plus the newest titles for kids. We've also redesigned our unbeatable cover disc, which is once again packed with interactive demos of the latest CD software and competitions. Don't miss it! **£4.95 with CD ROM**

MACFORMAT

The UK's biggest-selling Mac magazine has this on offer in October – give your Mac the power to take you into the 21st Century! • Presentation programs – create a slideshow or a multimedia event • What a sequencer can do for your Mac-based music making • How to achieve airbrush effects in your Mac art program • Plus MacFormat's regular coverage of just about everything you can do with a Mac. **£3.95 with coverdisks, or £4.95 with CD ROM**

PC MAGS

PC GAMER

October's *PC Gamer* is the best yet. We visit top American developers LucasArts and report on their latest games, there's the world's first review of *Doom 2*, a profile of Doom's producers id Software, a free 16 page CD-ROM supplement and an exclusive covermounted CD demo of World War I flight sim *Dawn Patrol*. **£3.95 with 2 coverdisks**

PC FORMAT

You wanna know what's in October's *PCF*? Right, deep breath, here goes: H-U-G-E music/sound feature including reviews on music software for the beginner/intermediate/ professional and round-ups of sound cards and speakers. Two disks featuring huge playable demos of *Dawn Patrol* and *Jazz Jack Rabbit* – the hottest PC games around. A first look at *Klick'n'Play*, the excellent new create-your-own-games package. Reviews of *Microsoft Space Simulator, Desert Strike, NHL Hockey*. Erm, lots more but no room left... **£3.95 with coverdisks, or £4.95 with CD ROM**

PC Answers

PC Answers takes the world by storm in October with its first ever CD-ROM attached to the cover featuring *Illuminatus 2, Zool 2, Desert Strike* and the best shareware games ever. Inside the mag you can discover how to upgrade your old slow 386 to a super fast 486 – or even a Pentium, but without having to buy a new machine! All this and plenty more in the November issue of *PC Answers*, out on sale Thursday 29 September. **£3.95 with coverdisks, or £4.95 with CD ROM.**

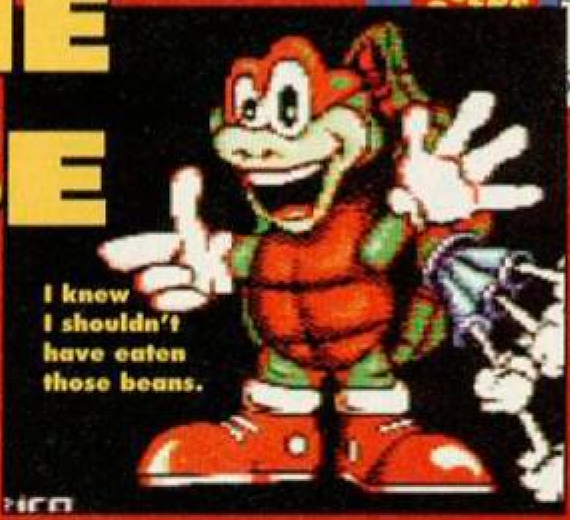
THEY'RE ALL ON SALE NOW AT YOUR LOCAL NEWSAGENT!

Serious ACTION



What are you waiting for? Get that covertape loaded now and check out the fantastic software that we've given you this month...

TURBO THE TORTOISE



I knew I shouldn't have eaten those beans.

Turbo was a mistake, a terrible accident of science gone hideously wrong – no, he wasn't taking part in a Tomorrow's World demonstration, he was the subject of an experiment by a mad but benign Doctor. Now he's got super powers that'd put teenage turtles to shame, and he uses them to help his master, the mad Doctor (personally I would be out of there like a shot just in case another one of his 'experiments' went wrong).

This Doctor also owns a Time Machine (that sounds strangely familiar) and it is this device that Turbo uses to whiz from historical level to historical level in the game. Not that the settings have much bearing on matters. The aim in each level is to get from one end to the other, avoiding or killing the baddies, and then to make mincemeat of the end-of-level guardian and collect an ancient artefact of some sort (that's about as much significance the historical settings have). But there are loads of bonuses and extra weapons to collect along the way to make things a heck of a lot more exciting.



The end-of-level guardian shows off his Charleston skills.

When you begin each level you have no weapons and you have to deal with the nasties in time-honoured platformer tradition – bouncing on their heads. But collect everything in sight, and you'll soon find you've got some form of armament. But be warned – not all your enemies go down with the first hit.

Luckily, you don't go down for the count on a first hit either – if you clash with an enemy you just lose energy. When all your energy depletes, then you're one life down. And when you've lost all your lives it's time for that hibernation from which you'll never wake... until you start the game again, anyway. But don't think that the odds are totally stacked against you – there are a fair few energy and extra life bonuses liberally scattered around each and every level.

Watch out for secret rooms and invisible blocks – they could be lurking anywhere. And don't think you can never reach a bonus – it'll take either pixel-perfect manoeuvring, some more lateral thinking or an invisible block. Good luck... and be careful out there.



Straighten those shoulders, soldier.



If he doesn't get a move on, there'll be frozen tortoise on the menu.



Tortoise turns turtle...

Loading instructions

To run side one of the tape type RUN"TURBO to load *Turbo the Tortoise* or RUN"LIFE to load *Life*. If you type RUN"TRANSFER you'll be able to transfer these two to disc.

Side two, *Crossword Compiler*, you have to load onto disc so here's what you do: put a data-formatted disc in the drive and RUN"UNPACK. The program will be automatically decrunched and transferred onto disc.

Loading troubles?

We make the greatest efforts to ensure our cover- tapes work properly, but if you've tried all that and your tape's still not loading then pop it in the post (with a note telling us your name, address, type of CPC you use and a description of the problem) to the following address:

Ablex Audio Video Ltd,
Harcourt,
Halesfield 14,
Telford,
Shropshire TF7 4QD.

NB When returning faulty tapes could you please also include a stamped, self-addressed envelope. Thank you.

TURBO CONTROLS

JOYSTICK LEFT	Left
JOYSTICK RIGHT	Right
JOYSTICK UP	Up (and extra high bounces on trampolines)
JOYSTICK DOWN	Down
FIRE	Fire (when you've got a weapon)
RUN STOP	Pause

CROSSWORD COMPILER



Our PD writer, Keith Woods, once described this as probably the best PD application he'd ever set eyes on. One of the reasons he gave *Crossword Compiler* such a glowing recommendation was because is it packed with just about every option you could want from a crossword compiler... and that's also one of the reasons why we're going to cop out a bit here.



Er, it's normally this mucky colour, but for some reason our screenshot-getting software doesn't like the program... sorry

You see, to explain everything that *Crossword Compiler* can do would probably take half the magazine, and with pages so precious these days, that seems a bit impractical. But don't panic, because a) we'll give you a few hints to getting started, and b) there are full instructions in the program anyway.

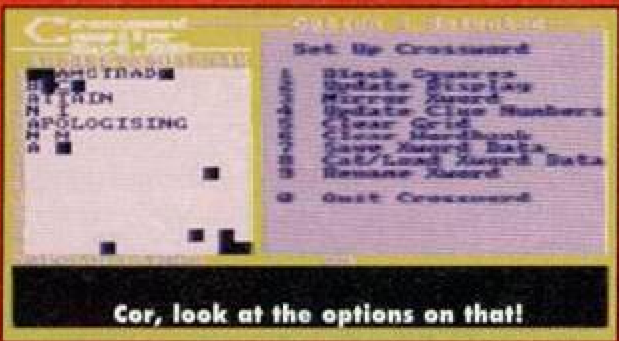
First, let's get this compatibility bit out of the way. You'll need a disc drive to get the thing working, because on tape it exists merely as a compacted program, so you'll need to decompact it onto disc; instructions are given in the box-out on the opposite page. The program will work fine on an expanded 464 Plus, an expanded 664, a 6128 or a 6128 Plus. In theory it will work on an expanded 464, but in practice... that's another story.

You may or may not have to put a copy of BANKMAN.BIN (found on the system disc that comes with your machine) on your *Crossword Compiler* disc. I say that because, at the time of writing, Richard Fairhurst is desperately trying to find a way around having to do this, but we can't guarantee success (though I reckon he'll do it – crossed fingers). And now for that step-by-step guide we promised:

1 After entering the name of your crossword, you'll come to the main menu. The first thing to do is load in the dictionary. Press 5, then 4, then 1, then L.

2 Now it's down to business with designing your crossword grid. Get back to the main menu and press 1 twice followed by Y. Using the cursor keys choose a square and press COPY. Wow, look at that! Blacken a few more squares to come up with a decent design.

3 Once your grid's ready, it's back to the main menu and time to fill in the words. Press 4 and enter your first word, then place it on the grid using the cursor keys. Press N when asked about the word bank.



Cor, look at the options on that!

4 When you've entered as many words as you can think of, chances are you'll be left with a few annoying gaps. This is where the dictionary comes in. Go back to the main menu, press 5, then 1 and then 2. Choose a gap using the cursor keys. You'll be given a list of words that fill the gap. Jot down the best one, then go back to the step 3 and fill it in on the grid.

5 All you need now are some clues. Press 6, then 4 and then Y. When the word bank menu comes back press 1 and choose a word. Now press 6 and type in the clue for the word you've just chosen. Repeat this process for all the words.

6 If you've managed to follow all this you should have just finished your first crossword. Go back to the main menu. Press 1 then 7 and your crossword will be saved (hopefully).



The program can even work out anagrams.

7 Reset your CPC and run the printing program. Follow the on-screen prompts to load in the crossword you've just saved and choose the print-out size and quality and soon you'll have your precious crossword on paper.

8 Now the tricky bit – find someone who wants to try and solve your crossword.

No more discs...

The world shortage of 3-inch discs has finally caught up with us, I'm afraid, and we can no longer offer our usual tape-to-disc transfer service. Sorry about that. But from now on, we will make sure that there is also a tape-to-disc transfer program on every covertape.

BACK ISSUES

4 ISSUES FOR THE PRICE OF 3

Don't miss out on this amazing money-saving special offer! The more you buy the more you save!

Check out these crazy prices...

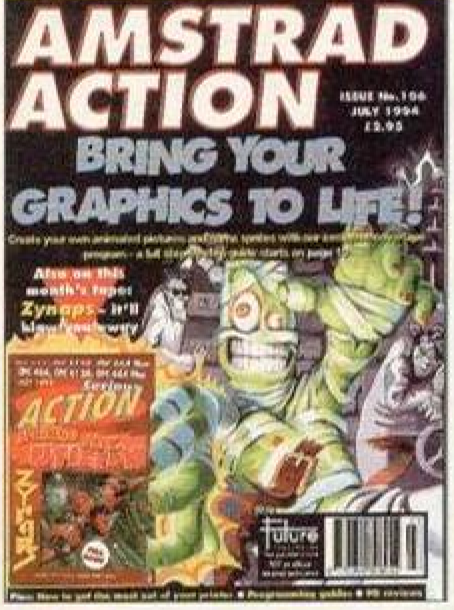
1 back issue £2.50
2 back issues £4.50
3 back issues £6.50
4 back issues £7.50

All extra issues.....add £1.50 for each





AA77: **Covertape:** Seymour Take One **(mini game),** Firelord, Football Forecaster, **Fonts. Inside: The French Connection,** GAC **tutorial. Reviews:** You're Learning, Paperboy 2.
AA78: SOLD OUT
AA79: SOLD OUT
AA80: **Covertape:** Stryker and the Crypts of Trogan **(demo),** Anarchy, Croco Magneto, GPaint. **Inside: The making of Seymour, buyers' guide to word processors. Reviews:** Titus The Fox, Stryker.
AA81: **Covertape:** Forbidden Planet, The Addams Family **(demo),** Sprite Designer. **Inside: Fanzines, buyers' guide to DTP.**
AA82: SOLD OUT
AA83: SOLD OUT
AA84: Famous Five on a Treasure Island, Notepad, Liteprog. **Inside: 3D games. Reviews:** Hideous, Brunword ROM.
AA85: SOLD OUT
AA86: **Covertape:** Glider Rider, **animation utilities. Inside: MIDI music. Reviews:** Wild West Seymour, Reckless Rufus.
AA87: **Covertape:** Nexor, Pakman, MPack, Pilot **(very simple programming language). Inside: Dizzy, this is your life. Reviews:** Football Manager 3, Super Seymour.
AA88: **Covertape:** Tankbusters, Penguins, JL-Copy **(tape to disk utility). Inside:** Videomaster, **top CPC add-ons. Reviews:** The Shoe People, Crystal Kingdom Dizzy, Robin Hood.
AA89: **Covertape:** Wriggler, MagicDOS, Superchars. **Inside: The European demo scene. Reviews:** Zap't'Balls, Crazy Cars 3 **and a whole lot more (as they say).**
AA90: SOLD OUT
AA91: SOLD OUT
AA92: **Covertape:** BooTracker **(music program),** Syntax, Balloon Buster. **Inside: Complete guide to data storage. Reviews:** Soundtrakker, The Simpsons.
AA93: **Covertape:** Racing Boxform, Mystical, Who's Afraid Of The Balrog? **Inside: Spreadsheets and databases, setting up a PD library,** Super Cauldron.
AA94: SOLD OUT
AA95: SOLD OUT
AA96: SOLD OUT
AA97: SOLD OUT
AA98: SOLD OUT
AA99: SOLD OUT
AA100: **Covertape:** Elite. **Inside: The Top 100 CPC products ever, a look back at the first 100 issues of** AA. **Reviews:** Touchdown, Page Publisher.
AA101: **Covertape:** Exolon, Home Accounts. **Inside: The complete guide to animation on the CPC, interview with Radical Software,** Elite **Masterclass.**
AA102: **Covertape:** Cybernoid 2, Graph Master, D•I•Y•F•X. **Inside: make some noise – your CPC's sonic capabilities, The CPC world. Reviewed:** DES **– Desktop Environment System.**
AA103: **Covertape:** Nebulus, Speech. **Inside: copying devices,** Fluff **preview, Elmsoft interview, shoot-'em-ups round-up, low-cost printer reviews.**
AA104: **Covertape:** AA Toolkit, Uridium. **Inside:** Fluff **review, the PD scene exposed, sports sim round-up,** Basic Idea, Home Teacher **and all the other usual stuff.**
AA105: **Covertape:** Deliverance, Bomber, Basic Utilities. **Inside: A complete guide to getting your CPC to communicate with other computers,** Megablasters **preview.**
AA106: **Covertape:** Zynaps, Spriting Back. **Inside: The easy way to animate your graphics, the complete beginners' guide to printers. Reviews:** Making Music.
AA107: **Covertape:** Ikari Warriors, Picasso **(art package). Inside: The weirdest and most pointless software and hardware ever released for the CPC. Review:** Masters of Space.
AA108: **Covertape:** Fantasy World Dizzy, RoutePlanner **demo (128k only),** Graph Plot. **Inside:** RoutePlanner **reviewed, getting the most out of your Multiface, a Cheat Mode "no listings zone' special, the best PD game ever?**





Amstrad Action Back Issues

Name ______________________

Address ______________________

____

Post code ________ Phone No ________

Method of payment (please tick)

Access ☐ Visa ☐ Cheque ☐ PO ☐

Credit Card No ☐ Expiry date ☐

New lower overseas rates:

● Europe £2 ● Rest of the world £4

I would like the following back issues...

____

Cost of back issues ________ £☐☐.☐☐

Please add cost of postage and packaging ________ £☐☐.☐☐

Total cost ________ £☐☐.☐☐

Please make all cheques payable in pounds sterling to Future Publishing Limited, and send the whole lot off to Amstrad Action Back Issues, Future Publishing, FREEPOST, Somerton, Somerset TA11 7BR. No stamp needed within the UK

Basically basic

Yes, we've escaped Hippy Heaven after last month's sojourn into psychedelia with palette-switching, and are now going to jump head first into symbolism without the aid of a net, or a philosopher. Angela Cook and Rob Buckley do the honours...

The more astute among you may have already gathered that every time you type a character into BASIC, it appears on the screen represented by a group of pixels. These characters are ALWAYS made up of a matrix of 8x8 pixels, which form the shape of the characters, such as A or R. This is very useful if you're writing an accounts package, but totally useless if you're writing a game. So welcome to the wonderful world of SYMBOLs.

I am not a number

Every character on the CPC is represented by a standard number which never changes, a bit like your National Insurance number. The numbers always stay the same, no matter what use you put the character to. These numbers are called ASCII codes, ASCII standing for "American Standard Code for Information Interchange". We can check the ASCII value for any individual character by using this simple line from BASIC:

```
PRINT ASC("A")
```

This will give the number 65 as a response, since this is the ASCII code for A. You can also do the opposite:

```
PRINT CHR$(65)
```

This takes the number 65 and then prints on screen what ever letter it represents, in this case A. When trying various numbers, if you type in a number less than 32 it will produce some weird, but unharmful, effects on the screen. For more ASCII codes, look in the User Manual, and put in different numbers instead of 65.

Not very useful you may think. But what if we could make an ASCII character look like an evil Dave...er, I mean space invader?

```
10 SYMBOL AFTER 64
20 SYMBOL 65,100,234,10,130,17,12,19,17
```

Once set, SYMBOL AFTER 64 means that you can change any symbol from 64 to 255.

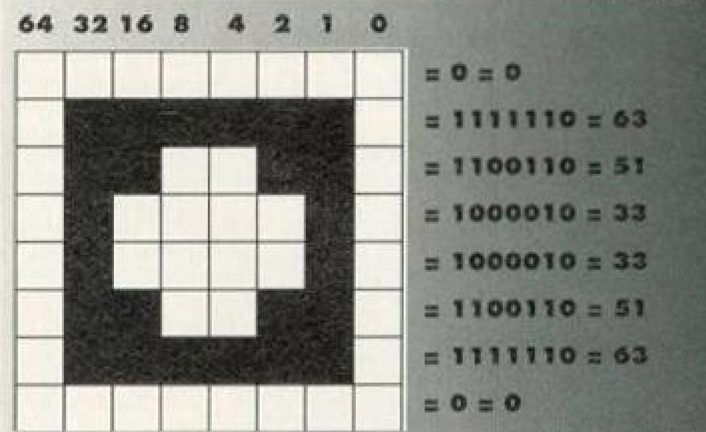
Right, I bet most of you tried to RUN the program as soon as you'd typed it in, yeah? Ha, try typing a capital A instead (*that'll teach you to read things fully first – Dave*). The symbol is a complete mess.

The eight numbers appearing after 65 in line 20 represents the data which forms the new symbol. But how do you know what data will produce which effects? This involves drawing up an 8x8 grid and filling in the pixels to create the desired character (see the diagram). Each block which is filled in is represented by 1. If it is blank, then it's represented by 0. Yep, you've guessed it – we've entered the Binary Zone.

What you end up with is eight horizontal lines that represent eight different binary numbers. These can then be converted from binary to decimal (see the box out), and those values are the ones you need to produce your character.

Do it yourself

In this way you can build up your own personalised character set. But it also means that you can use characters to create graphics as opposed to drawing screens pixel-by-pixel each time. Okay so it might seem like you've had to define each pixel within the character, but once you've done that, you can use it again and again in a screen quite easily – think of game backgrounds that are basically repeated



images. Creating graphics this way also saves memory.

Draw a simple space ship:

```
10  MODE  0:SYMBOL  AFTER  64:SYMBOL
65,&X11011011,&X01111110,&X01011010,&X01
100110,&X01100110,&X1111111,&X10011001,&
x10000000120 LOCATE
10,12:PRINT"A"
```

Not impressed? We could always draw a bigger character, by designing multiples of 8x8 grids, then placing them side be side:

```
10 MODE 0:SYMBOL AFTER 64:SYMBOL 65,&X00
000001,&X00000111,&X00001001,&X00001001,
&X00010001,&X00010001,&X00100001,&X11111
111
20 SYMBOL 66,&X00000000,&X11000000,&X001
00000,&X00100000,&X00010000,&X00010000,&
X00001001,&X11111111
30 SYMBOL 67,&X1111111,&X11111111,&X1111
1111,&X11111111,&X11111111,&X01111110,&X
01111110,&X00111100
40 PEN INT(RND*14)+1:FOR F=1 TO 15:LOCAT
E F,10:PRINT" AB":LOCATE F,11: PRINT" CC
":FOR G=1 TO 200:NEXT G:NEXT F
50 GOTO 40
```

Lines 10, 20 and 30 are setting the symbols, this does not have to be done in BINARY, it can be converted to decimal. Line 40 is really just setting the inks to a random number, then moving the character across the screen. And line 50 creates a loop so that the program continues to run.

BINARY FINERY

Binary is machine code's way of representing characters (ie, numbers and letters) using only the digits 0 and 1 (representing OFF and ON such as wether a pixel within a character should be filled – ON – or left blank – OFF).

In BASIC, to differentiate between binary and decimal, we have to put the characters &X in front of every binary number, eg, &X10101 = 21 in decimal.

There is a long-winded, manual way of finding out what the decimal equivalent of binary number is, but since we've got a computer at our disposal, let's use that instead. If you have a binary number and want to know the decimal equivalent then use this little command:

```
PRINT &Xbinary number (eg, PRINT &X101)
```

Then press return and the decimal value will appear on-screen.

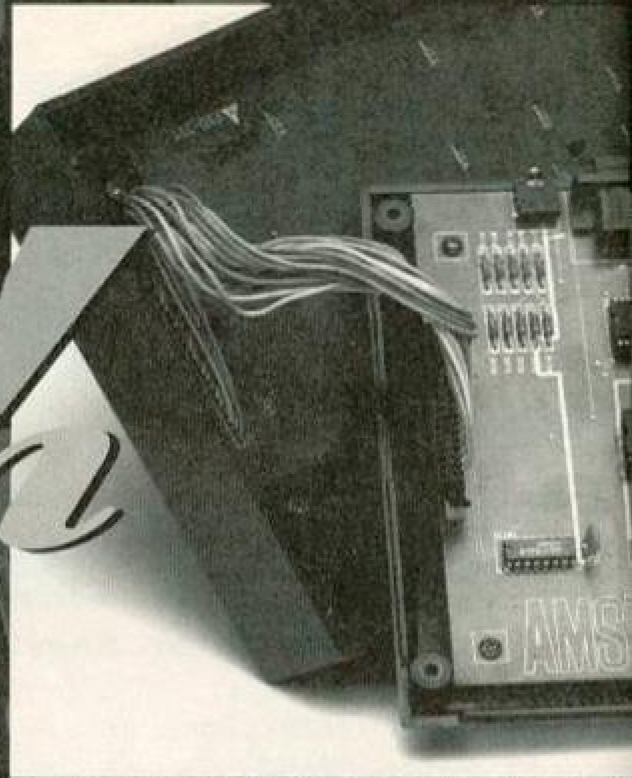
This also works the other way round:

```
PRINT BIN$(decimal number) (eg, PRINT BIN$(5))
```

IN FOUR WEEKS

In the next thrilling installment we will look at drawing lines (*we will, will we? – Angela*) (*Yes – Rob*) (*Are you sure? – Angela*) (*I'm writing the program! – Rob*) (*I'm writing the article! – Angela*) (*Stop arguing – Dave*) (*Shut up – Rob and Angela*) (*Sniff – Dave*), after that we will try out our new-found skills in palettes and graphics on a rather swanky *Space Harrier* game. Plus interviews with Scott Bakula and Demi Moore... (well, maybe not).

Techy forum



Can you use a PC to back up your CPC files? How can you recover deleted files? What can you do to make your BASIC programs run faster? All these questions and more get the full Richard Fairhurst treatment...

Watch it, widget

1a I have a CPC 464, a 464 Plus and a DDI-1 with CPC interface. Would it be possible to share a CPC 64k expansion and a CPC Multiface 2 between them if I used a Wave Widget with the Plus? (I do not wish to throw away the CPC, as I have found quite a few games that work on it, but not on the Plus.)
1b Would it also be possible to share the DDI-1 and its interface between the machines, or would I have to buy a modified CPC interface for use with the Plus? (I would not want a Plus interface, because I want to use the Multiface and memory pack with it.)
1c Would the connections get worn down with fairly frequent change-overs? If so, is there any way to overcome this problem?
1d Would a 64k expansion make my computers 6128-compatible enough to run programs/games which are 6128 only?
2 Do the Magnum light phaser games work on the CPC464 Plus with the newer Trojan light phaser?
3a Do the CTM640 and MP-3 make a TV which is as good as a normal TV?
3b Do the CM14 and MP-3 Plus make a better or worse TV than above?
3c Do you need the keyboard connected to work either of the above set-ups, or can they work simply as monitor and MP-3?
RJ Dalton, Salisbury

1a The 64k expansion you can use on either, with the aid of a widget on the Plus, although you might be tempted to fit a convenient internal 64k upgrade to your Plus. The CPC Multiface, I'm afraid, won't work with the Plus. If you're worried about Plus incompatibility in games, the resident hackers at STS (check out the Amscene Directory) will happily make them compatible for you.
1b Again, a CPC interface won't work with a Plus – the internals are different. There's no reason why, with a bit of soldering, a switch couldn't be fitted to the interface to toggle between CPC and Plus compatibility; 'phone around CPC hardware specialists to see if any of them will take it on.
1c Plus connectors are very resilient, and although the CPC's aren't quite so robust, if you treat them carefully then you shouldn't run into too many problems.
1d It depends. The phrase '6128 only' covers two topics – 128k-only programs, which will run on any 128k-equipped computer, and those – such as some type-ins – which require the extra commands of BASIC 1.1 (which anything except a CPC 464 will understand, even a 464 Plus). The great majority of commercial '6128 only' programs fall into the first category, so a 64k expansion is a wise move.

Security alert

I swap PD programs with pen-pals a lot, but a while back one of them told me that they could get at all sorts of programs on my discs that I thought I'd deleted before writing to them. Apparently there is a POKE you can use to do this. But why doesn't deleting a file mean exactly that? How can I get rid of the programs forever?
Tim Woods, Banbury

You may or may not be familiar with the idea of user numbers. If not, here's a brief explanation. Any program or document saved on a disc can be stored in any 'user', numbered from 0 to 15. By default, you save in user number 0 – hence the `Drive A: user 0` message we all know and love. It is possible to save a file in another user number, though, and also to move a file from one user to another. The first you do using the `|USER` command (eg, `|USER,3`) – and the second using `|RENAME` (for example, `|RENAME,"5:PROGRAM","2:PROGRAM"` moves the file `PROGRAM` from user 5 to user 2).

All well and good, but what's the relevance to your problem? Quite a lot, really. When you 'delete' a file from a disc, all the computer does is move it to user area 229, which is not usually publicly accessible. Files in area 229 are ignored, and often written over, when the CPC is looking for somewhere on the disc to place a new file – before too long, the old file will be completely wiped out.



Have those files been properly disposed of?

However, if you don't save anything after deleting files, the originals will still be intact in area 229. This is how your friend found them, and you can too, by typing `POKE &A701,229` – which is equivalent to what `|USER,229` would do were it not for its restriction to user areas 0–15 (if you've got ROMs fitted above ROM 7, you'll need to type `POKE PEEK(&BE7D)+PEEK(&BE7E)*256+1,229`).

You can hide files in any of the many other user areas, too, but it's only 229 that's treated as the 'Death Row' of CPC files.

To recover files from this area, either use `|RENAME` or one of the many PD or commercial programs which offer this service – David Wild's *Desk*, for example. If you want to wipe all trace of them from the face of the earth, you can use the commercial program *MaxiDOS* or the rather nice PD sector editor *DMon*, both of which offer special options to wave bye-bye to unwanted files – *DMon*'s system is slightly more fail-safe. As a last resort, dive into the directory tracks with a sector editor, but take care.

All of which means that you should be careful about deleting incriminating files – make sure they can't be recovered. **Richard**

2 The Trojan Light Phaser, as sold by Trading Post, is exactly the same as the Magnum.
3a Very nearly – the picture quality is surprisingly good (but don't expect Dolby Stereo or Teletext, okay).
3b Slightly better, because the Plus has larger speakers inside the CM14 monitor.
3c They'll work quite happily without the computer connected. **Richard**

Read all about it

I am trying to load a file into memory and save it out again, for the copier part of a disc utility I am writing. Unfortunately, although I can load binary files and even BASIC programs, things aren't quite so easy when it comes to ASCII files. Is there any way of using `CAS IN DIRECT` to read the whole lot in at once, or must I use `CAS IN CHAR` again and again? (It's awfully slow!) Also, is there any way of finding the length of the file?
Tony Cotter, Blackpool

Although ASCII files don't have headers from which you can fetch the file length, *AMSDOS* constructs a 'mock header' in its workspace which you can refer to. Its address is returned in `HL` after you call `&BC77` to open the file. Bytes 64, 65 and 66 store the length of the file – so, assuming that it's not going to be over 64k long, the following will do the trick:

```
push hl: pop ix
ld l,(ix+64): ld h,(ix+65)
```

Using these, it is possible to tell the CPC to accept ASCII files for direct, all-in-one loading of the type you describe. After you've found the length as above, insert this line of code:

```
ld (ix+65),&FF: ld (ix+66),0
```

You can now treat ASCII files in the same way as you would any other. **Richard**

Gets your back-up

I have been reading *Amstrad Action* since issue 76, but after reading your communications feature in *AA105*, I jumped for joy. There it was, staring me in the face! For months I have been wondering how I could utilise my 486's hard drive to back-up my tape games, since nothing appears to have come of several attempts to produce one designed for the CPC. So I rang around PC PD libraries and purchased the CPC emulator you praised so much, only to run head over heels into trouble.
1 Will a parallel port be able to transport the files to my PC's hard drive from my CPC 464, and how could I do this?
2 How would I hook an external tape deck to my PC and transfer the files through this?
3 While looking through the manual supplied with the disc, I noticed that it could not emulate the CPC's sound. Is there any way of doing this, since my knowledge of programming is very limited? Is there a newer version of the emulator which has ironed out this problem?
4 Will the software supplied with the disc designed for stealing the ROM work on the 464, since most continental CPC users have 6128s? If not, how can I modify this?
Please, please print this, or I may do something serious, like grow my hair long like Simon's.
Steve Letchford, Ferndown

1 No. Theoretically, you could build a parallel input port for the PC, but hacking your tape games so that they can run off a hard drive would be an almost impossible challenge for even the most hardened game cracker (and if you want to try to prove me wrong, by all means go ahead, but don't say I didn't warn you).
2 PCs don't talk to tape decks, and they don't have any facility to do so (except for the very first IBM PC). Sorry.
3 No offence, but if the author of the *CPC Emulator* – a humungously complicated piece of code – can't emulate the sound chip, then it's not going to be a job for someone whose programming skills are 'very limited'. The problem is not helped by the fact that the standard PC sound specification is worse than the CPC's, until you start adding third-party, and non-standard, sound cards.

We don't know of a newer version, but if anyone out there has one, please contact us.
4 The ROM-napping software will work with either 464 or 6128, but you will need a 3.5-inch disc drive to get it into the PC in the first place – and you don't make it clear whether you have a disc drive at all.

The best solution for backing up your tape games is to buy a 3.5-inch drive, and either a Multiface or a software back-up utility (such as *Bonzo* or *Soft-Lok*). Forget the PC option – it's too much hassle. After all, you don't really want hair like Simon's... **Richard**

Pounds, shillings and pence

I bought a second-hand CTM644 colour monitor which has a fault on the 5v supply. It powers up the computer perfectly well and starts to run a program – then it blips out and the program is lost.
I have overcome this by using the 5v supply from an MP-2 modulator, but do you think that a reasonable cost repair is possible to the monitor?
Cliff Britten, Bath

It sounds like your monitor is tripping – no, not getting high on illegal substances, but engaging an auto cut-out circuit. It will probably only require a small adjustment to the monitor, and since the circuitry's pretty much the same as a TV, you should be able to take it down to a local electronic repairman without incurring the extra cost of using a CPC specialist repairer (not to mention postage). **Richard**

I'm free!

How do I find out how much free space a file will need on disc? I can usually tell with *Protext* but BASIC doesn't have any such on-screen 'number of characters' display.
Alan Dunn, Sheffield

First of all, type `CLEAR` to remove any variables. Then type the following:

```
PRINT (HIMEM-FRE("")-370+128)/1024
```

Round up the result, and that's how many kilobytes your file will take up.

An explanation, please? Certainly, sir. `HIMEM` is the highest address in memory up to which you can store BASIC programs. Underneath `HIMEM` in memory, there's your program, the free space, and 370 bytes used by the system right at the start of memory. To find out the length of the program, you simply take the amount of free space (`FRE("")`) and the 370 bytes used by the system away from `HIMEM`. Finally, you add 128, because every file takes up 128 extra bytes at its beginning (the 'header') when stored on disc. And then it's all divided by 1024 for conversion into kilobytes. Easy enough, yeah?

Now all you need is a status line, constantly on-screen, like *Protext*'s... **Richard**



Hard base

Can you help a man in deep despair? Here is the story so far – about three weeks ago I set out to write a database. It needs to store about 1,200 records of 25 bytes each, giving a grand total of 30k. This just would not work on my CPC 464.
After reading your excellent mag (grovel, grovel), it seemed best to purchase a dk'Tronics 64k expansion. After two days of trying to understand the instructions, I finally understood my task. I rewrote the database so that the actual data would be stored in the extra 64k, and I tested the program and it seemed excellent – the computer didn't crash.
But then came the worst bit of all – the data in the 64k expansion was corrupt, all

around the wrong way, bits missing, wrong characters in each bank, etc. So I checked my program bit by bit and could not find anything wrong, and to this day I cannot understand why the data is being corrupted. It appears that my string variables are being loaded into the banked RAM even when I have not told the computer to do so. Can you think of a reason for this?
Stephen Hemmings, Romford

It's difficult to tell what the problem is without actually seeing the program, especially because the dk'Tronics software is rather primitive and not best suited for database storage; the convoluted way of addressing the unit offers a million-and-one possibilities for why it's going wrong. One thing to check is whether you are setting the string variable to a sufficient length before reading it in from the extra banks, which is an easy thing to forget.



Alternatively, dump the whole lot and use the following method instead. Run this, and three new commands will be available to you. `|FORMAT` wipes the extra 64k. To place a string – maximum length 25 characters – into the 300th record, type `|PUT,@a$,300`. To read it back, try `b$=SPACE$(25): |GET,@b$,300`. Records are numbered from 0 to 2620, which should prove more than adequate!

```
100 MEMORY &9FFF:r=0
110 FOR n=&A000 TO &A0E6
120  READ a$:p=VAL("&"+a$)
130  POKE n,p:r=r+p
140 NEXT:READ c
150 IF r<>c THEN PRINT "Data error!":STOP
160 CALL &A000
170 :
200 DATA 01,0D,A0,21,09,A0,C3,D1,BC,00,00
210 DATA 00,00,18,A0,C3,25,A0,C3,44,A0,C3
220 DATA 70,A0,46,4F,52,4D,41,D4,47,45,D4
230 DATA 50,55,D4,00,01,C4,7F,ED,49,C5,21
240 DATA 00,40,36,00,11,01,40,01,FF,3F,ED
250 DATA B0,C1,0C,79,FE,C8,20,EB,0E,C0,ED
260 DATA 49,C9,CD,98,A0,E5,DD,6E,02,DD,66
270 DATA 03,46,23,5E,23,56,E1,0E,19,78,B7
280 DATA C8,CD,A9,A0,B7,28,06,12,13,05,0D
290 DATA 20,F1,DD,6E,02,DD,66,03,3E,19,91
300 DATA 77,C9,CD,98,A0,E5,DD,6E,02,DD,66
310 DATA 03,46,23,5E,23,56,E1,0E,19,78,B7
320 DATA 28,0A,1A,13,CD,C8,A0,05,0D,20,F3
330 DATA C9,AF,CD,C8,A0,05,20,F9,C9,DD,6E
340 DATA 00,DD,66,01,E5,29,29,29,E5,29,D1
350 DATA 19,D1,19,C9,C5,E5,47,7C,E6,C0,07
360 DATA 07,C6,C4,4F,7C,E6,3F,F6,40,67,78
370 DATA 06,7F,ED,49,7E,0E,C0,ED,49,E1,C1
380 DATA 23,C9,C5,E5,47,7C,E6,C0,07,07,C6
390 DATA C4,4F,7C,E6,3F,F6,40,67,78,06,7F
400 DATA ED,49,77,0E,C0,ED,49,E1,C1,23,C9
410 DATA 27152
```

To save the data, use a loop which `|GET`s each record in turn, and writes it to an open file – to load, open this file, and |PUT each record.
I hope this proves to be a little less troublesome. **Richard**

Tormented by techy troubles?

Ignorance is bliss? Rubbish? What's so great about having a techy problem you can't solve? If you've got a CPC problem, spurn those old clichés and seek the knowledge which Richard 'well I'm perfectly happy' Fairhurst is only too please to dispense every month. Write to: Techy Forum, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Top Tips

10 TOP TIPS FOR SPEEDING UP BASIC

And in the spotlight this month, a special guest appearance from Chris Morgan of Aldershot, whose speciality subject is making BASIC programs run faster – without the hassle of compiling them or the difficulty of learning machine code. Your 45 seconds start now.

1 Most programs use integers (whole numbers), but are treated as real numbers (*fractions and the like – Richard*), taking longer for the computer to calculate them. By using the command `DEFINT a-z` at the start of the program, you can tell the computer that all variables are integers.

2 If you're using a formula to work out several values within a program, these values can be calculated at the start, increasing the running speed. To do this you must use an array. For example, if several circles the same size are needed, the appropriate values can be calculated, put into an array and used.

3 Graphics can slow a program down. When you want the character to move a pixel at a time, define the character with an empty border, to avoid deleting it (assuming there is no background).

4 Make a note of the resolution of the screen mode. In mode 0 you can move four pixels horizontally, two pixels in mode one and a measly one in mode two. You can move two pixels vertically in any mode.

5 An easy way of getting the screen to scroll vertically is by using ASCII characters 10 and 11. When using these, avoid scrolling windows, as opposed to the whole screen, as it makes a noticeable screen difference.

6 The control codes are useful for saving valuable time. They are listed in the manual. (*For example, if you want to change to Pen Two in the middle of a line of text in a `PRINT` statement, all you have to do is type `CTRL-0` followed by `2` – Richard*)

7 `REM` statements slow a program down, so avoid them within the main loop, and make sure you always `GOTO` or `GOSUB` the next line.

8 Try to use short variable names.

9 Make use of all the commands.

10 Finally, there are occasions when there is more than one possible solution to a programming problem. Testing to find out which of the routines is quickest is easy. All you need to do is insert `t1=TIME/300` at the start of the routine, and `t2=TIME/300: END` at the end, then run the routine. Afterwards, in direct mode, type `PRINT t2-t1` for the time taken for the routine. Do this for alternative routines, and then delete these lines.

Good samaritans' department

Dear Techy Tips,

The letter from Miss Strait-Jacket Cox(?) prompted me to write in with a little hardware hint I have passed on to a couple of other 6128 owners. I incorporated a switch in my 'custom tape lead' (don't blow a raspberry, it makes your *AA* soggy and hard to read) so I can rewind/fast forward while the 6128 is loaded or running.

All you need are two 3.5mm and one 2.5mm mini-jack, a 5-pin DIN plug, suitable wire (from a dead joystick, perhaps), a small switch (all low voltage stuff), a sheet of 40 thou 'plasticard' and some liquid poly from your local model shop. Soldering iron and solder are needed for the electrical side, but maybe someone can help you with that?

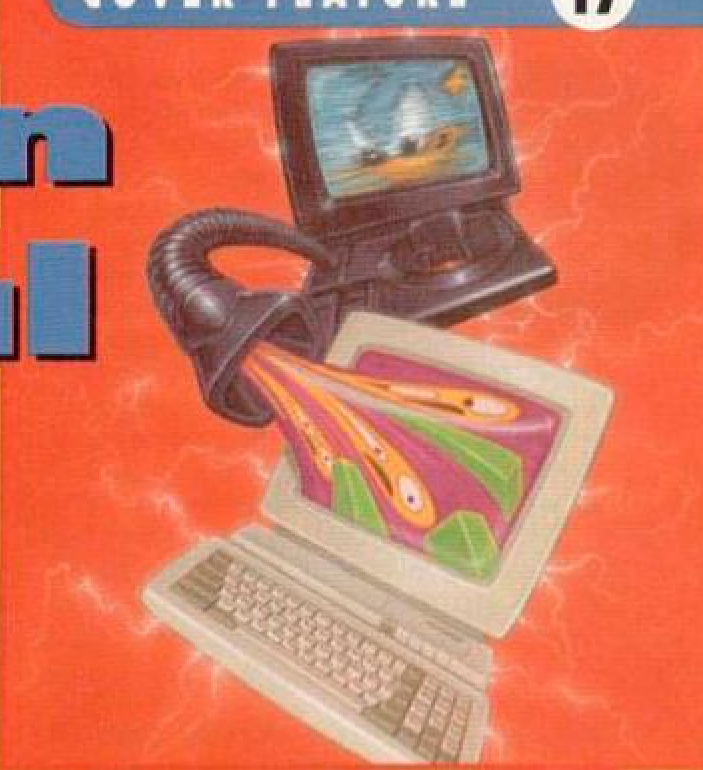
The plasticard is used to make a neat little insulating box around the mini-jacks and wires, and supports the switch which is soldered in parallel to the remote jack. Easy, innit?

Hint 1: fit the mini-jacks in the recorder, then cut the base to fit. Hint 2: don't glue the top on your box before the soldering is done. It messes up the soldering iron and makes dark grey smells.

Seriously, though, if you make the wire the right-length for your set-up, it really looks neat as well as being useful, and saves wear and tear on the lead and sockets. I reckon I made mine for £5 with components at high street shop prices, but I already have the plasticard and liquid poly.
BJ Coussell

Thanks very much. BJ also kindly enclosed a (very well-crafted) lead for Miss Cox. So, Miss Cox, if you'd like to get in contact with us again, we'll send it on to you. And are there any CPC hardware companies listening out there...? **Richard**

The origin of several species...



"But what did the CPC ever do for us?" your average console owner might ask. The answer – a hell of a lot. Simon Forrester proves how the CPC has influenced a whole generation of computers and consoles.

Okay, I'm not going to try to fool you people – I'm not using a CPC to write this feature. However, having ventured through STs, PCs, Apple Macs, various consoles and the like, I can't help feeling that for all their extra memory, speed and pointless buttons on their keyboards or joysticks they don't actually do anything the Amstrad couldn't do, albeit, a bit faster. Okay, a lot faster. But that's not the point. The point is that the Amstrad CPC, though on the, shall we say, blunt edge of technology, has contributed to the general world of the home computer in more ways that you could ever have realised. There are very few games, applications or utilities that don't have their roots in software that first came out on the 8-bit machine years ago. Things have got bigger, faster and more complex, but the ideas really haven't changed that much. Over the next few pages, we're going to see exactly how the CPC has affected every other machine on the market to date, and how its legacy will live on forever. Well, for quite a while, anyway.

Get yer bits out

Let's face it, the CPC was at the forefront of the home computing revolution. The ZX81 was all very well for propeller heads, and the BBC filled in for school teachers, but it wasn't until the CPC, C64 and Spectrum came along that the real computing revolution took off. The machines themselves set various precedents for computing that still hold true today:

● AFFORDABILITY – Though the CPC was the more expensive machine of its time, affordability was one of the most important criteria for getting computers into the home. Though you could have gone out and bought a nice, room-sized machine with twice the capabilities, no-one wants to – a few hundred on an affordable, capable machine is money well spent. Which is why the majority of people are happy to play a shoot-'em-up on the SNES rather than spend several hundred on a Neo Geo (which most of you probably won't even have heard of – sure it's a superb games machine but when only members of Middle Eastern royalty can afford it, it has about as much influence over the development of computer games as a pint of flat Guinness).

● EASE OF USE – In 1985, the computing revolution was only just happening. The biggest problem the designers of our wonderful machine faced was that 90 per cent of the general public would be completely alienated by anything even vaguely complicated. The CPC in particular had the obvious answer to this problem, with one of the easiest interfaces to get around (loading software and simple programming), which is now the ultimate goal for every machine released, ever. Strangely this was something Commodore could never quite the hang of; the C64 would never settle for a simple command when a three lines of typing would do the same job, and there should be Open University courses in finding your way around the Amiga's Shell.

● A SOFTWARE BASE – Obviously, a computer is nothing without software to run, and the next big problem the 8-bit revolution faced was exactly that. Availability of software depended largely on getting as many people producing software as possible. If you take a look at any of the popular formats today, *you'll notice that virtually all the people producing* the games being released all started out on 8-bit machines, either writing for them or at the very least playing them. This is probably the 8-bits' biggest contribution to the computing world – an industry that was built on machines like the CPC.

● GAMEPLAY – I'll be going into this subject in a bit more depth later, but basically, the games released on the 8-bits laid down the ground rules for computer games that are still being adhered to today. Sure, the increased power of the consoles means that the latest smash hits can come up with gimmicks that would be impossible on the CPC, but that's all they are, gimmicks. The basic gameplay hasn't changed. The consoles *haven't created any new genres*. Platformers, beat-'em-ups and driving games are as popular now as they were years ago. And the consoles continue to plunder the back catalogue of 8-bit games with increasingly less subtlety – hence *Donkey Kong Country, Super Drop Zone, Super Pang* (which is undeniably inferior to its 8-bit predecessor)... in fact, before long, you can bet that your favourite 8-bit game will turn up on a console with the word Super bunged in front of it.

Solid design

There comes a point, though, when we have to ignore the rest of the market. There comes a point when you have to repel borders and go it alone, getting rid of the Speccy for the worthless hunk of over-heating plastic it is, and chuck the C64 over the side of the boat because, well, it's Commodore, isn't it?

The fact is, the CPC really was the first machine to ever find a solid design, losing the many problems we suffered with the other machines:

● BBC Micro – you think you have problems with our covertapes? Nothing ever loaded on a Beeb.

● ZX81 – RAM pack wobble! Dodgy loading! Dodgier saving! 1k of



The Codemasters syndrome...

Ooh, I hate to do this. You see, though blame can be attributed to many other machines, the CPC really has got to take a huge chunk of the responsibility for, yes, Dizzy. Like many other games (which we'll come to later) the Dizzy series was originally developed closely with the CPC, which is why the CPC versions make use of the machine so well and why other machines suffer versions that are never quite as good.

When it comes to companies like Codemasters that have sprung up from kids in their bedrooms knocking out good, playable games, the CPC really was the best – its architecture lends itself perfectly to the idle creator, its firmware giving the Z80 base of the machine more power than any other processor in its class (the Nintendo GameBoy, by the way, has the same Z80 chip – just thought I'd mention it).





memory! No sound! No colour! Thank God they superseded it pretty darned quickly.

- Speccy – The benchmark test for a Speccy refers to the enormous charred scar it left on the table when it burst into flames after working at full pelt for, ooh, about ten minutes.
- C64 – The one machine that could be guaranteed to be utterly incompatible with everything you tried to plug into it, from tape decks, to printers. Its version of BASIC was a joke as well.

The CPC on its own has an amazing legacy, taking credit for a lot more than you'd have thought. If you're lucky enough to own a CPC, keep hold of it – it's responsible for a hell of a lot, including…

Freescape

As you begin to see more and more of magazines like *Edge* and *GamesMaster*, you'll read more and more about virtual reality. Those that haven't seen or heard of it before won't have a problem coming to grips with the idea – imagine playing *Driller* wearing a helmet that produces the graphics and moving around the environment using your feet on, say, a treadmill rather than typing in the direction commands on a keyboard – it's supposed to make you feel like you are really inside the digitally created environment. Virtual Reality has very real advantages for everyone on the planet – architects can wander around buildings as they're designing them; training sims can be even more realistic.

So what did your CPC have to do with VR? As far as modern VR is concerned, your CPC is utterly incapable of helping you – it has neither the processing speed or the storage capacity to ever handle the kind of image processing and updating you'd need. What can't be denied, though, is that we saw it all here first.

Driller – remember that one? Incentive Software spent a long time building up to what turned out to be one of the most innovative games ever written, and they did it on a CPC. Though nowhere near as advanced as the games in the same range that followed shortly after, *Driller* was the pioneer of a 3D perspective graphics system called *Freescape* – a graphics system originally conceptualized, developed and released on the CPC.

Some might say that it's a bit of a tenuous link between Freescape and VR – well, they can go and stick their heads in a bucket full of maggots, because they're wrong, frankly. *Driller* was, in every sense except not having to wear a daft helmet, VR. It had a complete 3D world which you could walk around and look at from any angle – what more do you want from VR?

Sounding off

Let's take the casing of the machine for a few moments, shall we? If you can get your machine to beep, you can take it from me that the CPC's sound chip, the AYlotsoftechnicalnumbers, will be working overtime. If you open up a 16-bit machine (the Amiga will do), and get the thing to beep, you can take it from me that the Amiga's sound chip, the AYthesametechnicalnumbers is working just as hard. The legacy of the CPC is more than a few gaming genres, you see – for a machine that's supposedly technically incompetent, there are a hell of a lot of people taking tips from the design, aren't there?



Shadow of the Beast – written on a CPC, it helped launch hundreds of Amigas.

Beastly shadows

Several years ago now, though the CPC was drawing to a close as far as the major software industry was concerned, Gremlin Graphics produced a game for the CPC called *Shadow Of The Beast*. More importantly, they didn't just produce it for the CPC – they produced in on the CPC as well. So what?

Shadow Of The Beast was a top-selling game – everybody loved it. And it was probably the game responsible for getting more Amigas sold than any other, but it was primarily developed on the CPC. And its influence lives on; the sideways-scrolling adventure-puzzler is still a staple diet of computer games, and things like *Donkey Kong Country* on the SNES keep the genre going strong.

Locomotive BASIC

What's the first thing you see when you turn on your machine? It's not some naff, unhelpful DOS prompt,

We were there first

We really could carry on with the principles of game design and how the CPC defined most of them for the rest of this mag. Console machines themselves owe more to the CPC than you think; the CPC, for example, was the first to make proper use of the EPROMs you'll find in any console game cart; EPROMs that are essential to the way these new formats work.

Hardware developments aside, every new game that breaks big on the latest generation of consoles owe a big debt to the CPC and it's 8-bit siblings. Besides the cases we've mentioned elsewhere, think about this little lot…

- **Starwing – It's another SNES game, this time using the SuperFX chip, predecessor to the one we've just talked about. Hmm – a filled polygon 3D shoot-'em-up in space, involving not only chasing enemy ships and blowing them away, but flying down tunnels destroying enemy installations and escaping the resulting explosion. Yeah, right – am I dreaming, or was I playing 3D Starstrike before the SNES was a twinkle in Nintendo's eye?**



Starwing – or should that be Starstrike? Even Elite had strange vector spaceships.

- **Secret of Mana – One of the largest console games ever, Mana involved a group of people wandering around with weapons, statistics and the like, following a storyline, defeating strange enemies in a style closer to an RPG than an arcade games. That'll be Heavy On The Magick, then, I reckon.**



The real Secret of Mana is that it owes a lot to an old 8-bit game. So now you know.

- **Doom – If you've never played Doom on the PC (and soon on just about everything else), you really ought to. Wandering around an enemy fortress butchering bad guys in full 3D-O-Vision is something you have to do before you die. If you're stuck on a desert island with only 10 minutes to live and only a CPC in sight, though, just load up Bloodwych, because it's all very much the same thing. Are you getting the picture yet?**



Wandering around maze-like levels killing people was popular way before Doom.

- **Sonic The Hedgehog and Super Mario Whatevers– Cute platform games sure. But all character-led platform games everywhere are really derived from Manic Miner. And if you're going to get picky and bring up multiple-screen scrolling and exploring-a-strange-and-bizarre-new-world-angle, well, obviously we're talking about Jet Set Willy, aren't we? And then Bubble Bobble and Rainbow Islands came along to refine the genre into the form that is we know and love today.**



Sonic owes a lot to an old miner.

but BASIC – Locomotive BASIC. The thing about this wonderful programming language we've grown to know and love is that there's no accepted standard – versions of BASIC change dramatically depending on who wrote them.

The important thing about Locomotive BASIC is that, though it was obviously never copied outright by anyone for legal reasons, it's set a standard for home computers as far as the language was concerned. Syntaxes, string handling (MID$ for example), and even text formatting (USING, etc), were slowly reaching fruition when the BBC Micro hit the scene, but you can be guaranteed that if you know Locomotive BASIC, you won't have any problems with any other version of BASIC after that – it's the accepted standard.

Locomotive Software themselves are still around, having taken their initial footing with the CPC and carried on from there, working with CP/M in a big way, and more recently dealing with machines at the higher end of the market.

Amstrad

The Spectrum. Love it or hate it (or love to hate it), you do have a certain affiliation with the machine – when Amstrad bought the company several years ago, they re-released the Spectrum, the machine supporting Sinclair at the time. Looking more like the CPC than ever before, the machine then went on to a second lease of life, finding success in the tried and tested formulas Amstrad had used on the CPC. People remember the Speccy – they never actually use them, do they?

Future Publishing

We're dead good, we are. Future Publishing shifts over a million magazines a month, making it Europe's largest consumer magazine publisher. Not we don't want to blow our own trumpet or anything, but this massive publishing empire, giving help and advice to a nation of computer users, console players, mountain bikers and needle crafters alike (nothing's more fun than crafting the odd needle). The really scary thing is, the whole thing started 109 months ago in deepest Somerset with Chris Anderson, a bank loan, a stack of CPCs and a copy of *Amstrad Action*. Something else the CPC should be credited with – the magazine you're holding, and the jobs of the people who write it.



The point is, the CPC gave the Spectrum more than just a few gameplay ideas and the occasional design point – it kept it alive for a long time, turning the machine from a box near obsoletion to the over-acclaimed and loved machine it was in the end.

Physical design

It's time for pure conjecture here, but consider the design of the CPC's contemporaries for just a few minutes. When you look back, you'll find that physically, the CPC had something none of the other machines of its time could boast. Whereas the Spectrum and Commodore combined both the processor and keyboard in one box, the CPC went one stage further, throwing a tape or disc system into the deal. What's the point?

The advantages of the set-up, apart from the lack of wires and the extra desk space you'll gain, are minimal. The important factor here is that, when you look at the machines that followed, such as the ST, Amiga, Archimedes, Sam Coupé, etc, they all followed the new design standard, fitting as much into one box as possible, eliminating the need for complex wiring and hasslesome set-up – you just plug in your machine and go.

The CPC, you see, was the cause of the only other packaging standard to oppose the PC (processor box, screen, and separate keyboard), and this new style of set-up certainly seems to have caught on in a big way.

So there you go, then

The next time someone slags off the machine you're using, you can show them this feature – nothing is original, and the industry that puts itself way above the means of the average computer user should remember where it all started. Sure, things have come along way since Alan Sugar launched the CPC way back in 1985, but things have got this far for a reason – ours were the machines that started this industry, and the legacy of the CPC still lives on through everything that's released on the most complex, powerful machines today.

So when you turn up at the Future Entertainment Show (wonderful, 26th October onwards, 0369 4235 for tickets, we can't miss an opportunity for a plug, etc), you can walk around, chanting smugly; "I did that...".



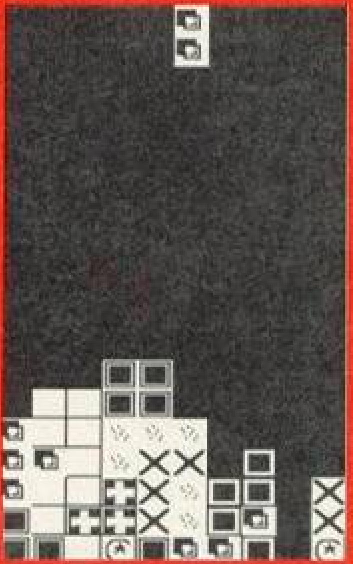
Puyo Puyo is basically Japanese for "here we go with yet another spin off of Tetris".



Super Bomber Man: modified by Hewson from one of their old games.

● *Puyo Puyo, Robotnik's Bean Machine, Columns, Pac-Attack* – you name 'em, they're all critically adored things-falling-from-the-top-of-the-screen-and-being-joggled- around-with puzzle games. But all those games are just sons of *Tetris*, and we all know where *Tetris* first appeared – repeat after me: 8-bit home computers.

● *Super Bomber Man* – One of the world's all-time classics, undoubtedly. And a completely original concept too, surely? Nope. Go back to about 1987 and you might be surprised to stumble across one of the world's 17 sold copies of *Eric and the Floaters*, the game that Hudson soft stole from themselves and stuck a four-player option on to turn it into the most social experience ever achieved with a video game.



Tetris – just as good on a mono screen.

● *R-Type 3* – A smashing thinking-player's shoot-'em-up where the player takes control of a powerful ship and infiltrates a complex enemy base, switching between an array of extra weapons to find the best one in each particular situation. *Cybernoid*, in fact.



Cybernoid and R-Type 3, but which is which?

● Every tedious scroll-along beat-'em-up ever from *Golden Axe* onwards – Melbourne House's ancient (and crap) *Fighting Warriors* began all that nonsense.



SF 2 – do we really need all those moves?

● *Super Street Fighter 2 Turbo Hyper Fighting Championship Edition X* – Oh come on, surely we all know this one by now. Every one-on-one beat-'em-up ever follows a direct lineage from *Way of the Exploding Fist* and *IK+* – the only differences are better graphics and ludicrous moves that you only ever do by accident while trying to negotiate your way around the joypad's 23 different buttons. And you still win by doing a flying kick.



IK+, the great grandaddy of all beat-'em-ups.

If there are any readers out there who'd like to dispute any of these claims, please feel free to write straight to me personally, care of Future Publishing, because I'll be happy to point out even more example of the way consoles have plundered the 8-bits for all their best ideas. In fact, if you reckon you've played a console game that bears more than a passing resemblance to a CPC classic, why not write in and let us know about it – we love stirring things.

Typing listings

If you've never typed in a listing from *AA* before, then reading the following blurb is a REALLY GOOD IDEA.

- Basically, all you need to do is make sure you type in exactly what we print EXCEPT the first four letters in each line.
- The first four letters are a code which work in conjunction with our unique and utterly excellent *TypeChecker* program below.
- Only press RETURN when you get to the end of a command line. If a command line goes on to two lines do not press RETURN at the break in the line. Your lines on screen should break in exactly the same place as they do in the mag.
- The dots you see in some lines (like the one between well and done in `PRINT"Well·done"`) indicate spaces. The dots are there so that you don't have to guess how many spaces to put in when there are more than one.

TypeChecker

This program lets you to check whether you've typed *AA* listings in correctly. Type it in, then SAVE it for future use. When you want to double check that you typed a listing in correctly:

- Load up *TypeChecker*.
- Type NEW.
- Type in the listing of your choice.
- When you've finished type LIST.
- At the end of every line a highlighted code will appear. It should correspond with the code printed in front of the same line in *AA*. If it doesn't you have typed in that line incorrectly.

```
PAML 10·'·TypeChecker·V1.0·-·By·Simon·Forrest
     er·-·Dec·1992
MAOJ 20·'·For·Amstrad·Action·-·Public·Domain
DANK 30·MEMORY·&9FFF
CAJK 40·csum=0
GAME 50·FOR·addr=&A000·TO·&A05B
DAKJ 60·READ·byte$
GAJB 70·byte=VAL("&"+byte$)
FACF 80·POKE·addr,byte
GAFB 90·csum=csum+byte
DALK 100·NEXT·addr
OACI 110·IF·csum()&2ADD·THEN·PRINT·"Checksum·
     Error":END
LAHE 115·POKE·&A001,PEEK·(&BB5B):POKE·&A002,P
     EEK·(&BB5C)
KAHI 120·POKE·&BB5A,&C3:POKE·&BB5B,&3:POKE·&B
     B5C,&A0
MACN 130·PRINT·"TypeChecker·V1.0·Installed":E
     ND
MABC 140·DATA·CF,FE,93,FE,0A,CA,00,A0,F5,C5,D
     5,E5,FE,0D,CA,22
LACJ 150·DATA·A0,5F,16,00,2A,5A,A0,19,22,5A,A
     0,E1,D1,C1,F1,C3
LAFJ 160·DATA·00,A0,3E,20,CD,00,A0,3E,18,CD,0
     0,A0,2A,5A,A0,7C
LADI 170·DATA·CD,45,A0,7D,CD,45,A0,3E,18,CD,0
     0,A0,21,00,00,22
LACN 180·DATA·5A,A0,C3,1B,A0,F5,E6,0F,C6,41,C
     D,00,A0,F1,E6,F0
KAJC 190·DATA·1F,1F,1F,1F,C6,41,CD,00,A0,C9,0
     0,00,END
```

Turning *TypeChecker* off (it is automatically initialised when you RUN the program above) and back on again is quite simple:

`POKE &BB5B,0`	To turn it off
`POKE &BB5B,3`	To turn it back on again

Isn't science amazing? (Now don't argue.)

Amscene Extra

Improved Design

MicroDesign Extra is now available from Campursoft. It provides many extra and improved features over the standard *MicroDesign*, such as inch-high fonts and a larger variety of fonts including Times (which looks like this in case you were wondering). It'll set you back just £14.99 on 3-inch disc and £13.99 on 3.5-inch disc. Campursoft can be contacted on ☎ 041 554 4735. And hopefully we'll have a review for you next issue.

Don't quote me

Coming soon from Radical Software is a new quiz game called *Who Said That?* It's all about recognising famous quotations, and from what we've seen so far, the presentation is very slick. It should be available by the time you read this, so give Radical a ring on ☎ 081 856 8402. And guess what? There'll be a review next issue.



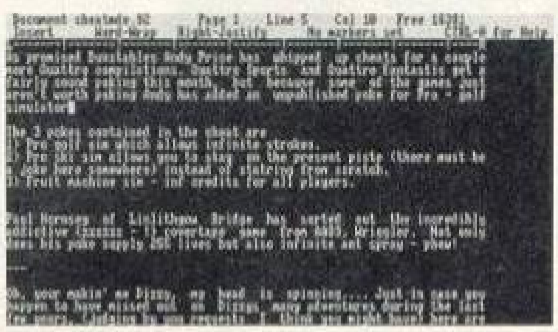
Did you know that Bogart never actually said, "Play it again, Sam"?

So *why* do I need a ROMboard?

Speed, power, convenience, and other active buzzwords that marketing people like – all these apply to ROMboards without the merest hint of an advertising exec straining for effect. And Richard Wildey's here to tell you why your life isn't full without one...



If you've just got *Protext* and *ROMDOS* sitting in your ROMboard and a row of empty slots it's time to do something about it. What do you mean, you haven't even got a ROMboard? The least every CPC user owes themselves is a ROMboard containing *Protext* and *ROMDOS*. Unfortunately finding a good, reliable, supplier for both ROMboards and ROM-based software these days is the main problem. Your best bet is to trawl the small ads column of this fine magazine and try to beat 15,000 other *AA* readers to the telephone.



***Protext* – so much easier to use on ROM.**

ROMboards (or boxes as they're sometimes called – they're essentially the same thing) plug into the back of your CPC and have a number of slots (usually eight) into which you can insert 16k chips – the ROM chips – which contain all manner of impressively fast and powerful programs. Prices for ROMboards vary, but you should be able to get a decent one for about £20, and no way should you pay more than £100.

Protext

Most ROMboard owners already have *Protext*, and quite rightly so; the ability to flick in and out of *Protext* without losing your BASIC or machine code programs in memory make it a godsend. Arnor also made other ROMs to complement *Protext* which are less widely used. *Promerge* allows you to have two documents in memory at once as well as giving you extensive mail merging facilities. *Prospell* is a spelling checker – the main program is on ROM while the dictionary is stored on disc.

ROMDOS

ROMDOS is an essential program if you want to use 3.5-inch discs, definitely the next thing you should purchase after the disc drive itself. It allows to do all those tedious disc operations with the minimum of hassle. It's available on disc as well (as *RAMDOS*) but frankly, if you're serious about your CPC, you need to get the ROM version.

Programming tools

CPCs crash far more often when you're working in Machine Code rather than in BASIC (or at least, that's what I find, but then again maybe that's just my coding). Having an assembler which you can access instantly will save you an awful lot of time loading from disc.

Arnor's ROM-based assembler *Maxam 1.5* and *Protext* work in harmony like fish and chips. Rather than using the pretty clumsy text editor which the standard version of *Maxam* gives you, new improved *Maxam 1.5* allows you to use *Protext* and so lets you create longer source code while giving you the speed and flexibility of *Protext*.



***Maxam 1.5* – crying out for *Protext*.**

The other ROM machine code users will want is *HackIt*. *HackIt*, unlike most ROMs, is a foreground ROM. This means that with the flick of a switch it will replace the BASIC ROM and appear automatically when you do a soft or hard reset, leaving all memory intact ready for you to disassemble and edit.

Foreground ROMs

A foreground ROM is one which is initialised as soon as your computer is turned on; most of the time with a CPC this will mean the BASIC ROM, the front end of the CPC – Locomotive BASIC. Campursoft have recently brought out their Graphical User Interface (GUI) *DES* which is also a foreground ROM and which is therefore available to the use immediately when you switch on your CPC.



***DES* – a foreground ROM.**

Other people have written WIMP systems; in the Public Domain we have the highly acclaimed, but somewhat bugged, *DW Desk* and the slower *Worktop*. The trouble with these is that they don't come on ROM which means that they must be loaded first which rather defeats the object. Stick with ROMs, that's our advice.

Blowing your own

Contrary to popular belief, you can put both BASIC and Machine code programs on ROM yourself – it's not that tricky. Each ROM can hold up to 16k of data, programs going over this limit can be spread across a number of ROMs, which is what Graduate Software did with CP/M on ROM. To 'blow' a piece of software onto ROM (as it's technically referred to) you'll need a blank EPROM, a ROM blower, ROM blowing software and an EPROM eraser in case it all goes terribly wrong.

Blowing and erasing ROMs can be a timely practice so a RAMROM is also useful. A RAMROM is a piece of hardware that tricks a portion of your RAM into thinking it is ROM, and can be therefore programmed just as quickly. The RAMROM is not as volatile as RAM; it will survive a soft reset but not powering down the computer.

Blowing a ROM can take anything from 40 minutes to four seconds, it all depends on the software. Fortunately for us the four second version is public domain – The Stormin' ROM Programmer written and distributed by Robot PD should set you back less than 50p. This software is designed to write machine code programs to ROM.

To program a BASIC program into ROM you must do the following before hand:

1 **Calculate the address of the last byte of the BASIC program in memory. This can be found by adding the total length in bytes to &170.**

2 **Move the BASIC program to &C020.**

3 **Put an LDIR routine at the start of the program, &C000, to move the BASIC program from &C020 back down to &170.**

4 **After the LDIR subroutine poke the address calculated in step one into the following address (which differs depending on which flavour of CPC you're using):**

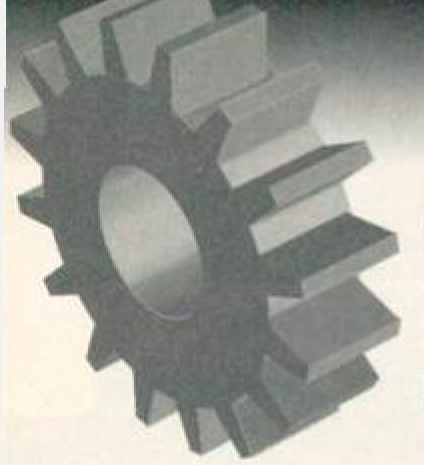
Machine : 664/6182
Address: &AE66
&AE68
&AE6A
&AE6C

Machine: 464
Address: &AE83
&AE85
&AE87
&AE89

5 **Finally POKE &C9 to end the machine code program at &C01F.**

All you have to do now is blow the ROM as normal. After issuing an RSX, which you, or the programming software, would have set up as if you were writing a normal ROM, the program can be LISTed and RUN as any other. The John Morrison (that's John, not Jim) ROM-blowing software contains a program to do the above for you but this is, I'm afraid, the software which takes 40 minutes to do its stuff.

Assembly line SPECIAL



Cut down to size



Our regular look at the world of Machine Code goes all arty in the first of a series of specials which concentrates on CPC graphics. Cue lots of 'Pixel Picasso' and 'Digital Da Vinci' jokes from Rob Buckley...

Ironically, your illustrious editor, Dave, has let me have two pages this month to talk about all things assembly, and guess what the article's about – yep, compaction!

Have you ever been in the situation where you have had tons and tons of lovely graphics, and no memory into which to squeeze them? If you have, you're in luck, because this month we have the routine that you've been waiting for. If you haven't, well just pretend, okay. It'll make me feel like writing this feature hasn't been a waste of effort.

There are three specific types of crunching programs: ones that compact the contents of a disc, ones that compact text and ones that concentrate purely on graphics, like the one we'll be looking at in this feature.

Although the different sorts might all sound very similar, believe me there is a world of difference. First, text compaction is relatively easy, as there are only 26 letters in the alphabet and about 20 symbols you can use. Disc compaction (archiving) is a lot more tricky, and generally has lots of clever algorithms to squeeze both graphics, code and text into the smallest space possible. It also takes a relatively long while to decompact anything, so it would be pretty useless for use in the middle of a game. Here however we are going to deal with graphics screens only.

Coming to the crunch

The first problem with compacting a screen is that each byte of a screen of graphics could be represented by a whole byte of information, ie, the first byte in the top-left of the screen could be assigned any number between 0 and 255. But as 0-255 bytes each require eight whole bits this is pretty wasteful.

Our routine works by crunching all the similar data together – that is if there is a group of 10 bytes all with the value 0 (ie, all the same colour) then it will crunch this down into just three bytes. This means that large areas of similar solid colour will be crunched into a very small area.

The problem with this routine is that if each alternate pixel is a different colour there will be no compaction at all. In fact, the file length would

Assembly on-line

Well, we're not really on-line (though *AA* will be soon, so keep your eye on Amscene) but as a headline it sounded better than Assembly Post Box. Anyway, here's a letter which was addressed to Assembly Line. Perhaps it should have gone to Techy Forum, but who cares? It's mine now to do with as I will. And if you have any Machine Code specific problems, by all means send 'em my way (*oi, that'll just leave me with loads of questions about printers – Richard*). Write to Assembly Line, *Amstrad Action*, 30 Monmouth Street, Bath, Avon, BA1 2BW.

● **How do I store four screens in the extra 64k of my 6128 and then display them quickly enough to do animation?**
John Reilly, Barnstaple

Here's a small routine which will do just that. It has two routines one called STORE and the other RECALL.

The small assembly listing simply uses the Bank switch method of:

```
LD BC,&7f00   LD A,&c4   OUT(C),A
```

It then copies 16k from &4000 to &c000 or vice versa. The bank switch is turned back to normal by:

```
LD BC,&7fc0   OUT(C),C
```

Assembly listing:

```
     Store:ORG &a000
           LD BC,&7f00
           LD A,(IX+0)
           ADD &c3
           OUT (C),A
           LD DE,&4000
           LD HL,&c000
           LD BC,16000
      Doit:LDIR
           LD BC,&7fc0
           OUT (C),C
           RET
    Recall:LD BC,&7f00
           LD A,(IX+0)
           ADD &c3
           OUT (C),A
           JP Doit
```

Here's the same routine in BASIC:

```
10 FOR f=&a000 TO &a000+49:READ a:POKE f
,a:NEXT
20 DATA 1,0,127,221,126,0,198,195,237,12
1,17,0,64,33,0,192,1,128,62,237
30 DATA 176,1,192,127,237,73,201,1,0,127
,221,126,0,198,195,237,121,17,0,192,33,0
,64,1,128,62,195,16,160,0
```

To store a screen in one of the four banks:

```
CALL &a000,(1-4)
```

To recall it:

```
CALL &a01b,(1-4)
```

That should do the trick. **Richard**



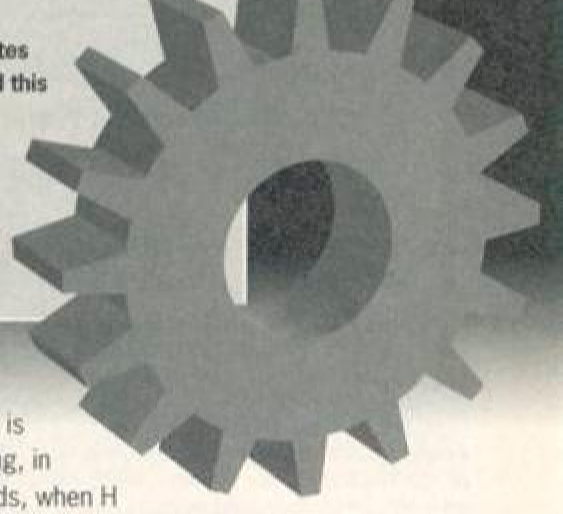
COMPACTING – THE ABRIDGED VERSION

Right, if you're new to compacting the theory behind all forms of data compaction goes something like this:

A compacting program looks for repeated patterns of bytes or a series of identical bytes in a row. It then assigns that pattern or the first byte in the series a 'code' byte which the compacting program stores instead of all the individual byte information.

So, for example, instead of storing a large are of red on a graphics screen as individual pixels, a compacting program will say, "Right-o, here's a series of 10 red bytes in a row. Let's store that in just three bytes (a, b and c) which tell me a) I've compacted this area, b) this area is red and c) that the compacted area is 10 bytes long. That's a saving of 70 per cent. Not bad."

Similarly, a compacting program may look for repeatedly used patterns (of graphics or commands depending on what type of compaction you're doing); what it can do then it save the complete pattern just once, then assign it a short code which it can subsequently save instead of the pattern each time; the code saying, in effect, "see pattern x".



be increased since we have to use a bit to tell the CPC whether the next byte is to be crunched or not. There is partial solution to this problem however, and that is by defining a byte which will mean the next byte is crunched. The first thing the compacting program has to do, then, is to find a byte which is not used in the screen (see Figure 1 on the listing).

So the first thing the routine does is search through each location on screen; it uses a 256 bytes table, each byte of which is filled with a one if that value is found on screen. When it has finished doing this, it sorts through the 256 byte table to find a number that wasn't used. This number will be placed in location NUM.

Now we have a number stored in location NUM which indicates that some information has been crunched when we come to decompact the screen. Next we have to sort through a screen and find suitable data to crunch. This is done (see Figure 2 on the listing– GET SEQUENCE) by checking each alternate byte. If a single byte is found alone then we just copy it from HL to DE, whereas if a sequence is found then the crunch byte, the number of copies and the value are all copied to DE. This continues until the end of the screen is reached.

The compaction is achieved from BASIC by:

```
CALL &a000,(location to put compacted screen)
```

The length of the newly-compacted screen can be recalled by:

```
PRINT HEX$(PEEK(&a078)*256+PEEK(&a077))
```

Resuming normal service

Now we move on to the decompaction, which is just a reversed version of the compaction process. The first byte we find is the CRUNCH number, which is stored as the first byte of the compacted screen. Now we loop through the screen taking a byte from DE (the compacted screen) and putting it into HL (actual screen). This occurs until the routine meets a crunch byte; the first byte of which tells the routine how many bytes have been compacted, while the second tell it the value of the byte to paste onto the screen. That value is then copied the required number of times onto the screen (see Figure 4 on the listing).

The routine recognises that the end of the compacted screen has reached in the same way as when it is compacting, in other words, when H becomes filled with the byte &FF

To decompact a stored screen:

```
CALL &a07c,(address of compacted screen)
```

To save a compacted screen:

```
SAVE Filename,b,(Start Address),PEEK(&a0
78)*256+peek(a077)
```

With this method you can save massive amounts of memory, generally shrinking a screen from 17k to about 8k. Even on complicated screens you should see a 30-40 per cent improvement, and if you don't I'll want to know why! AA

NEXT MONTH

Okay so that's that for another month, but what about next time I hear you cry – well how about some true sprites. That is, sprites that really do move around the screen without destroying what they pass over. And I'll also be covering look-up tables as a way of speeding up your programs, so you can ditch those slow old firmware routines. Catch you later, dudes!

Trash compacter

Here we go with that compacter listing in full...

```
        ORG #A000
        LD HL,#C000
        LD DE,#A100
        LD BC,16000

;*** FIGURE 1

FIND:   LD A,(HL)
        INC HL
        DEC BC
        LD E,A
        LD A,1
        LD (DE),A
        LD A,B
        CP 0
        JP NZ,FIND
        LD A,C
        CP 0
        JP NZ,FIND
        LD DE,#A100
        LD B,0
SELECTCOMPACTBYTE:
        LD A,(DE)
        INC DE
        CP 0
        JP NZ,COM1
        LD A,B
        LD (NUM),A
COM1:   INC B
        LD A,B
        CP 0
                JP
NZ,SELECTCOMPACTBYTE
        LD E,(IX+0)
        LD D,(IX+1)
        LD HL,#C000
        LD A,(NUM)
        LD (DE),A
        INC DE
BEGINCOMP:CALL GETSEQUENCE
        LD A,1
        CP C
        JP NC,NORMAL
        LD A,(NUM)
        LD (DE),A
        INC DE
        LD A,C
        LD (DE),A
        INC DE
        LD A,B
        LD (DE),A
        INC DE
ENDSCREEN:LD A,H
        CP #FF
        JP NZ,BEGINCOMP
        LD (NUM2),DE
        RET
NORMAL: LD A,B
        LD (DE),A
        INC DE
        JP ENDSCREEN

;*** FIGURE 2

GETSEQUENCE:
        LD C,0
        LD A,(HL)
        LD B,A
LOOP1:  INC HL
        INC C
        LD A,C
        CP 250
        RET Z
        LD A,(HL)
        CP B
        JP Z,LOOP1
        RET
NUM:    DS 1
NUM2:   DS 2
NUM3:   DS 1
NUM4:   DS 2

;*** FIGURE 3

DECOMPRESS:
        LD E,(IX+0)
        LD D,(IX+1)
        LD HL,#C000
        LD A,(DE)
        LD (NUM),A
        INC DE
MAIN:   LD A,(NUM)
        LD C,A
        LD A,(DE)
        INC DE
        CP C
        JP Z,DOLINE
        LD (HL),A
        INC HL
        LD A,H
        CP #FF
        JP NZ,MAIN
        RET
DOLINE: LD A,(DE)
        LD (NUM2),A
        INC DE
        LD A,(DE)
        LD (NUM3),A
        INC DE
COPIES: LD A,(NUM3)
        LD (HL),A
        INC HL
        LD A,(NUM2)
        DEC A
        LD (NUM2),A
        CP 0
        JP NZ,COPIES
        JP END
```

Reader ads

Who needs satellite shopping channels when you've got the AA classified section? I mean, when was the last time you saw a copy of *SuperCalc* for sale on EuroTat 37? Hah.

FOR SALE

Loads of Amstrad tape games for sale. Some old classics. For a complete list send an SAE now to David Barton, 10 Churchill Road, Earl's barton, Northants, NN6 0PQ.
Amstrad 6128, colour monitor, disc drive, plus discs. Choice of two machines, £120 ono each. Tel 0592 743544 evenings only.
For sale: 77 games, all original. 75p-£2 each. Also 23 issues of AA including 12 issues in a binder, 50p each. Phone 0329 510117.
Computer clear out! Hardware, software, magazines, everything must go. Items available for the Amstrad CPC (cassette and disc), Spectrum (cassette and 3-inch disc), Atari 7800, Sega, Nintendo and PCs. For a complete list of bargains send an SAE to James, Three Ashes, Bramley Road, Silchester, Reading RG7 2LL.
CPC6128 with colour monitor, complete with manual, joystick, disk drive as well as DR Logo software and 23 games. £70. Phone Jo on 0923 283182 (Chorleywood).
Amiga 1200 games. All new. Including Zool 2 £5, Street Fighter 2 £8. Too numerous to list all games. Other Amiga 1200 accessories also available. Tel 0332 771303.
Amstrad, C64, Atari ST assorted games. All new. Prices starting from £1. Tel 0332 771303.
Three-inch discs from £2-£6. 30p for AA covertapes 3, 4, 5, 12-18, 20, 21, 33-41. Magazines 40p. For list send SAE to Alan Archer, 21 Vandyck Avenue, Keynsham, Bristol BS18 1LE.
Over 30 CPC games including Predator, Enduro Racer, Milk Race and many, many more. Write to Felix Cable, Woodpark, Shrule, Co. Mayo, Eire.
Excellent prices on CPC software including Prince of Persia and many more. Send SAE for details to M Ruegg, 8 The Horse Park, Carrickfergus, Co Antrim BT38 7ED.
For sale: 64k memory expansion £25. DDI-1 disc drive £45. LOts of Amstrad Actions. Ring 081-458-3925. Plus over 60 tapes. For catalogue send an SAE to 25a Market Place, Falloden Way, London NW11 6JY.
CPC6128, colour monitor, TV tuner, cassette recorder, joystick, games, serious software, books, etc. £150. Soft 968 Firmware guide £15. Multiface £10. Serial interface £15. Phone 0621 782147.
Three slot machine games. Only £2.50. Price includes tape, p&p, tape to disc routine and free PD. Cheques to G Smethers, 13 Meadow Close, Cononley, BD20 8LZ.
Star LC20 printer. As new. Boxed. £75ono. 36 boxed original cassettes. Varied selection. For CPC464. £15. Tel 0375 843096.
Amstrad CPC6128, green screen, modulator, systems discs, manual, joystick. Will split. Phone and make me an offer. Tel 061 620 2118. Ask for Bob. Any sensible offer considered.
Laser Genius Machine Code disc £5. Amstrad Assembly course cassette £3.50. Loads of games, disc and cassette. Phone for details. 061 620 2118. Ask for Bob.
CPC464 with colour monitor, joystick, manual and 40 games. Plus, word processor, database, spreadsheet and soft 156. £65ono. Dennis 0843 223671.
Amstrad CPC464 computer, colour monitor, three manuals, 135 games and 20 mags. £70ono. Tel Martin on 0522 723829.
CPC6128, colour, TV modulator, systems discs, manual, multiface, tapedeck, joysticks, splitter cable, numerous tape/disc games. AAs 66-108 plus covertapes. £200. 0953 860368 (Norfolk).
Amiga games from £1 each. Send for list. Also Atari 2600 console games £5 each. D Hall, 280 Derbyshire Lane West, Stretford, Manchester M32 9LU.
Colour monitor, Amstrad CTM644, suitable for 464, 644, 6128 and others with adaptors. Excellent condition. All offers considered. Phone Richard on 0483 62362.
Amstrad CPC464 complete with CTM644 colour monitor, new joystick, manuals and about 25 software titles. £95ono. Telephone Aylsham 0263 735105. Buyer collects (Norwich area). Also Commodore 64 complete, £25.
Amstrad 6128 Plus, with colour monitor, modified to tape, multiface, disk games, etc, AAs issues 65-107, with covertapes. Phone Michael on 0602 373671.
CPC6128, colour monitor, manual, joystick, lots of games, programs, Mini Office 2, good condition, loads of AAs. £80. Daytime telephone number 0766 780366. Ask for Paul (work number).
Amstrad Action magazines, ACU magazines, AA covertapes, AA covertapes on disc and many other disc games for sale. Write to Alan Archer, 21 Vandyck Avenue, Keynsham, Bristol BS18 1LE. Games include Switchblade, Robocop, Turtles, Super Sega Collection, Powerdrift, Blues Brothers, NARC, Gremlins 2, Total Recall and many more.
Loads of goodies, tapes, discs, ROMs, magazines, books. I will sell/swap/buy. A4 SAE to Angela Cook, Brympton Cottage, Brunswick Road, Worthing, West Sussex, BN11 3NQ.
80,000 word ProSpell-compatible dictionary. Spans three disc sides. Send two blank 3-inch discs, stamped SAE and £1 to M Ruegg, 8 The Horse Park, Carrickfergus, Co Antrim BT38 7ED.
AA magazines from February 1987, 50p each plus donation for p&p. Four binders £3 each. Phone Ken on 0305 826927.
Light Pen and software for Amstrad CPC464, £15. Genius mouse, interface, mat and holder plus CCP Art Studio £18. Tel Alex 1253 353024.

Small ads buyers' guide

There are loads of great bargains to be found in this Reader Ads section and the other adverts scattered through the magazine. But some of you might understandably be a bit reticent about sending money through the post for goods you haven't seen to somebody you've only talked to over the phone. But don't panic. Just follow our simple guide to buying goods by post to minimise any risks.

⊠ Before ordering anything try to contact by phone to the person or company advertising the goods you want. Write down a list of questions you want to ask them – clarify the price, who will pay for delivery, compatibility, etc.

⊠ Confirm a delivery date – ask how long you can expect to wait before the goods will be delivered (with official companies it should be within 28 days).

⊠ Never send cash through the post. If possible use a credit card because it will probably give you some form of insurance. Failing that use a cheque or PO.

⊠ Keep records of all correspondence and phone conversations with the people you're ordering stuff from.

⊠ If a problem does occur, the first place to contact is the person or company you're ordering the goods from. Be calm and explain the problem clearly. Most faults are just mix-ups and can be sorted out.

⊠ If, however, you continue to have problems write to us at Advertising Complaints, Amstrad Action, 30 Monmouth Street, Bath BA1 2BW.

WANTED

The Chart Attack compilation on disc. Pay £4 to £12. Also wanted Switchblade on cassette or disk. Will pay £4. Telephone 0704 576795 and ask for Nandan.
Early AA mags. I need 2, 13, 18, 22. Best price plus return postage for clean copies. Have 6 and 10 plus ACU Nov 1990 for exchange, Phone George Burton on 0332 751657 after 6pm.
Eprom programmer with disc software. Prefer Microgenics, others considered. Phone Trevor on 0482 878949 with details and price.
BAT adventure game as reviewed in AA68 desperately wanted. Will buy for £8 or swap for six tape games. Phone Jordan on 0674 830534 between 4pm and 7pm.
I want your PD adventures. 178k for one adventure. Come on, what do you have to lose? Moonshine PD, 19a Kenyon Avenue, Garden Village, Wrexham, Clwyd CL11 2SP.
SuperCalc wanted for Amstrad 6128. Can you help? If so, then ring Alan Hall on 0454 773343. Bristol area.

AMSTRAD ACTION FREE READER ADS

Go on, you know you want to. It's really easy. All you have to do is fill in this giving us your name, address and telephone number and then write your ad – one word to a box – in the grid at the bottom. Please put a contact telephone number or address in the ad itself; we will not print any details not given in the ad (we just need your address of phone number in the even of any queries).

YOUR NAME ____________________

YOUR ADDRESS ____________________

____

____________________ **Post Code** ____________________

Please indicate which section you would like your ad to appear under:

FOR SALE ☐ WANTED ☐ USER GROUPS ☐ SERVICES ☐ PEN PALS ☐ OTHER ☐

Further reading

Better Than Life or worse than a really bad pun from Red Dwarf? David Crookes reviews the disczine that's got a lot of work to do to live up to its promises...

Better Than Life

PRICE: Free (Almost PD)
EDITOR: Richard Fairhurst
ADDRESS: Robot PD, 2 Trent Road, Oakham, Rutland. LE15 6HF

REVIEW

So here it is at last. After about a year of development Richard Fairhurst's eagerly-awaited, much-touted (mainly by us here at *AA*) disczine, *Better Than Life*, is now finally available. If it takes that long to get the first issue out, we can only guess at how long it will be before number two ends up on our doorsteps.

It has been hyped up as being the British disczine to trounce all other disczines (particularly the European ones) which partially explains the long wait. Richard Fairhurst has been hard at work perfecting a great feat of presentation and the *BTL* team are not too modest to shout about it. Unfortunately at the expense of others.

You see there is a great deal of name-calling, directed primarily at a few Irish members of the CPC scene. European sceners and fanzines also get the puerile slagging-off treatment. These kind of childish antics are pretty pointless at the best of times, and the last thing the CPC scene needs at the moment. You have to face up to the fact that the Amstrad is now being supported almost entirely by a small but hardcore bunch of enthusiasts – if those enthusiasts are at each others' throats the whole time then a lot of people are just going to get fed up with the whole thing and move on to another computer whose users actually work together to produce some good software. I don't think it is very likely that the average CPC user would be at all interested in whether so and so hates so and so anyway because, after all, they want to know about using their computers, not about the personalities.



BTL's presentation is undeniably slick.



Those dots form part of one of the most unreadable scrolly messages ever.

But it seems the *BTL* mob are obsessed with other people and other magazines. In fact, if they concentrated this energy on their own magazine then it would be a lot better off for it.

All this is very much a shame because there is a great deal to recommend in *Better Than Life*. Presentation can't be faulted. The bottom of the overscan screen is filled with a set of icons not unlike the ones you'd find on a video, and they're accompanied by four other boxes with the options for printing out the articles, changing the palette, giving information and a very handy help option should you get confused about how to use the 'zine. The top of the screen shows the *BTL* logo with the name of the article and a nifty introduction which continuously runs in the right-hand corner. The rest of the screen is devoted to the feature text, plus a few graphics.

A strange sense of humour guides the whole thing along with its often irreverent articles and a disappointing tendency to use swear words a lot.


There's a very good demo guide.

The editorial points out that they are great believers in speaking their mind and most is intended as tongue-in-cheek. It still doesn't excuse the minority of really spiteful articles, however.

There are some well-written reviews of commercial packages like *DES* and *ParaDOS*, old games such as *Flimbo's Quest* (yes, that old) and PD software and there's a nice hefty slice of news (but whether you take all the items seriously is up to you). An interview with Tim Blackbond, a tutorial on hacking, a release schedule and a firmware guide add up to an impressive list of contents but, without wanting to sound repetitive, are annoyingly marred by such nonsense as the Quantum Computing Exclusive and Idiot Country which are just excuses for more bitching.

With such a diverse mix in contents, mostly good, some bad, it makes it that much harder to give *BTL* a mark. But the childish remarks have their effect and spoil an otherwise good all-round magazine. Cut it out, lads.

Content:	**65%**
Appearance:	**90%**
Overall:	**70%**

THE NEWS SUMMERY

● Sleepwalker PD never seems to sleep (slick pun, eh?). Joe Moulding has been in negotiations with Salman Sandhu to distribute Salman's fanzine *CPC Express* (or is that *CPC Trekking?*). To keep you up-to-date, Sleepwalker now sell three fanzines: *Potential Difference, CPC Express* and *CPC Power*. You'll find the address in the Amscene Directory (page six).

● *WACCI*'s (that's *WACCI* the 'zine not the club) long-serving editor, Clive Bellaby has decided to stop editing the magazine as he just doesn't have enough time anymore to keep up the high editorial standards for which the 'zine is renowned. Don't despair, though, because *WACCI* (the 'zine) is now under the editorship of WACCI (the club) treasurer Paul Dwerryhouse and a bunch of helpers.



● Brian Watson has launched a new fanzine, *8-Bit Mart*, "to provide a forum for the continuing market of 8-bit computer software and hardware." In plain English this amounts to a 'zine which consists of small ads with a few trade adverts scattered about the pages, a bit like a newspaper's classified ads section.

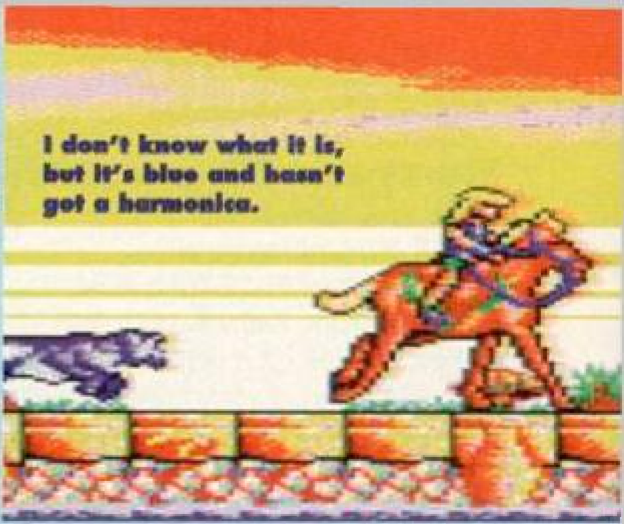
Anyway now that we've got the explanation out of the way, if it sounds like the sort of place you might find that widget you've been after for the last six months, or if you've been trying to sell a widget for the last six months, drop Brian a line at *8-Bit Mart*, Harrowden, 39 High Street, Sutton-In-The-Isle, Ely, Cambridgeshire. CB6 2RA.

Stop press...

The Irish contingent of the CPC scene is, unsurprisingly, not very happy with some of the claims made in *Better Than Life*. But rather than stepping up the animosity they're planning on bringing out a massive 100 page 'zine to show *BLT* what CPCers really want from a fanzine. For the full story and latest details, turn to Amscene on page five.

Public Image

Free software? Can't be bad, can it? Well, some of it is, some of it isn't. Which is why we employ Keith Woods to sort out the best public domain software from the worst



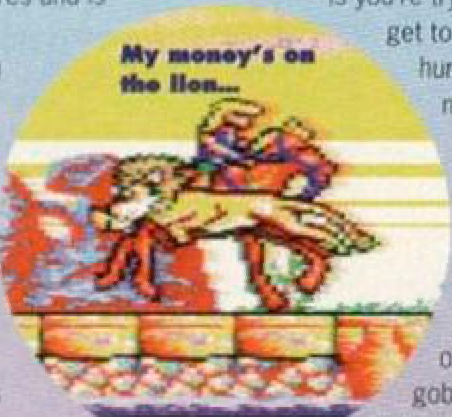
I don't know what it is, but it's blue and hasn't got a harmonica.

Xyphoe's Fantasy Demo

By CJC of CCC

Xyphoe's Fantasy was a large multi-level game which was released in France many moons ago, but was never sold any further afield. However, the PD demo, which comprises the full second level of the game, (which was the best anyway) has made it to these shores and is commonly available.

Xyphoe's comes from the same team that brought us *Atland* (reviewed in AA104) and like *Atland* is a sideways-scrolling shoot-'em-up in which you've got to fight off all manner of weird and wonderful creatures. This time around You're on horseback. Your steed is like a Grand National winner – he's fast, he's brave and he can jump to a quite remarkable height.



My money's on the lion...

However, he's also a bit of a hindrance, because he makes a large target for the various nasties. You'll need to defend him as well as yourself, because without him, you'll never get to wherever it is you're trying to get to in such a hurry (which is never quite explained). Thankfully, there are plenty of collectables to be found to help you out.



Eye, eye, what's going on here?

Just like *Atland*, *Xyphoe's Fantasy* has absolutely gobsmacking graphics – in fact, no other PD game has ever smacked my gob so hard as *Xyphoe's Fantasy* with its brilliantly-rendered sprites and backgrounds, its pixel-perfect scrolling and its breathtakingly-realistic animation. I know I said this about the animation of the bird in *Atland*, but I'll say it again about this horse's galloping – it really does have to be seen to be believed. If you want to know what sort of animation your CPC is really capable of, this is the game to get.

Of course, like any demo, *Xyphoe's Fantasy* loses marks for long-term playability. However, what there is of it is damn fine stuff, and it's well worth having just to marvel at that graceful galloping.

82%



Xyphoe's is very reminiscent of the C64 classic *Revenge of the Mutant Camels*.

Cyborgs: Blast Through History

By Elmar Krieger

There are many great difficulties in life – getting up in the morning, trying to follow the plot of David Lynch films, getting *AA* to you lot on time every month or sitting through a full episode of *Neighbours* without putting a fist through the telly, for instance. But none can compare with the greatest test of all – *Cyborgs!*

Cyborgs is an odd little game, make no mistake. It's like *Builderland* gone crazy, only without the cute guy. There are loads of levels, if only you could see them all.

In the first you pilot a small spacecraft which is forced to travel along a roller-coaster track. Unfortunately your ship is lacking one vital feature – brakes! This causes quite a few problems, as lots of winged serpents fly past that you'll need to blast out of the sky, but since you're moving too you rarely get more than one shot at them. Miss and they'll drop a bomb in front of you which you'll duly drive into.

The second major problem is that the track isn't complete. There are loads of gaps, which you'll need to fill in unless you want to end up daisy manure. Thankfully you remembered to bring along a stock of spare roller coaster parts for just such an eventuality.

The trick is to put the pieces in the right place at the right time, something which becomes acutely difficult in the second level. Level two, you see, is almost entirely concerned with these roller coaster repairs. You literally have only a split second to get many of those pieces in place, so it's more than a little difficult.



Here we have the new ride at Alton Towers.

The third level is even more difficult; so difficult, in fact, that even I can't get past it (*oh, very humble – Dave*). For this level your ship becomes airborne once more, and powers its way at breakneck speed through a level completely devoid of any decent flying space.

There are further levels, but we know no-one besides the coder who can actually reach the darned things. This is a shame really, as this game has an awful lot going for it, like a fully overscan screen, very smooth scrolling and animation and decent graphics. If it weren't so difficult we'd probably give it something around 90 per cent, but as it's so impossible it's only getting mere...

40%



Does anyone except the programmer know what the other levels look like?

CPC Emulator

By Marco Vieth (Available from Demon and The Vault. See Amscene Directory)

Have you ever had one of those really rotten days at work when nothing goes right and you feel like giving up and unwinding with a game of *Klax/Rick Dangerous/Elite/*(fill in relevant title)? Well, if you work with PCs, thanks to this new PC CPC emulator you won't have to wait until you get home (although you'll have to be careful your boss doesn't see you).

You'll need a reasonably decent PC to be able to do it, though. Realistically you'll need at least a 486 with 50 megahertz for the thing to run at normal speed, though a 386 will do if you don't mind taking things at a somewhat leisurely pace. You'll also need to have extra memory running under EMM to run this utility, as EMM is used to simulate the CPC's memory.

So if you do have this set-up, what can you expect from Marco Vieth's emulator? It'll run just about everything the CPC has to offer. While some demos will always cause problems, the latest versions of this utility can even cope with such things as overscan and rasters. The odd program still causes it problems, though. It doesn't like *Prehistorik 2* much for instance.

The program works by taking a copy of your CPC's ROM and creating 180k 'images' of your CPC discs on your PC hard drive. For all this, you do, of course, have to have the same size high-capacity drive on both your CPC and PC. A program for copying your CPC's ROM is included with the package and any other ROMS that you may have on the back of your CPC can also be copied over. Like the discs, these ROMS become 'images' on your hard drive which can be selected whenever you want them.

All remaining bugs that prevent programs such as *Prehistorik 2* from running should have been eliminated by the time you read this. The latest word is that Marco's got a perfect version up and running on a Power PC.

If the final program is as perfect as he says, it'll be worth another 10 per cent, the heavy set-up requirements being the only other possible criticism of this great package.

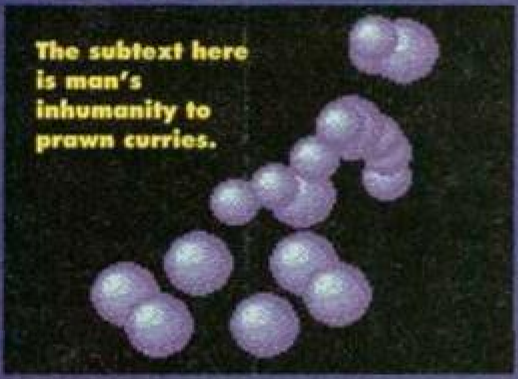
83%

Next Month...

"No!" they cried, "No, pleeeaase, not again – we've only just got over *The Taximan* last issue." But it was too late – they could tell by his crazed expression, they were going to have to suffer another CONCEPT REVIEW! With eyes glowing red and foam dripping from his mouth he turned and cried, "*Ghost Quadrant* will be my victim, hahahahaaaa!"

Only one question remained on their quivering lips. Would *Battlespheres* get the same treatment if it arrived on time for issue 110? And then someone thought the unthinkable – "What if he wants to interview the coder as well?"

Special Report: Demos



The subtext here is man's inhumanity to prawn curries.

Demos – little programs full of flashy effects or, as Adam Shade once suggested, chocolate hob-nobs that work for the KGB? (The nice man in the white coat helped Adam write this with his crayon.) There was only one thing for it: the Public Image team was going to have to start an investigation.



Loads of demos use black magic imagery.

What do demos do? Erm, good question. Most of them do little more than play some nice music and send some messages to friends of the coder (which'll bore anybody else to death). The demo usually justifies its existence by also including some smart coding effect, which, strictly speaking, your CPC shouldn't be capable of doing.

What about playability? This is the question that makes most demo-writers cringe. Basically, there is none. You just watch demos and read the messages. Some demos do have keypresses, but they're usually just to change the speed of something happening on screen. That's all you ever get to do.



Wow! An almost readable font.

Are demos popular? Well, some people obviously like them as PD libraries are full of the things. But PD librarians will stock anything! That may be true, but most insist that the demos do sell. Demos are much more popular across the channel – it sometimes seems they're talking about nothing else in Germany and France.



Persil Ultra will get rid of stains like this.

Who enjoys them? The people that enjoy good demos most are people that can appreciate the hard programming work that goes into the best demos, have an interest in the messages, or enjoy good CPC music or graphics (*programmers, then? – Dave*). If you don't think you possess most of these attributes, you probably won't like demos.

Who writes them? The best demos are nearly always a team effort. Most coders aren't good musicians or artists, and vice versa. Therefore teams are formed which combine the talents of many different people to produce demos which are good in every respect. The teams, past and present, which have produced the best demos are:

- Beng! – the team that produced many excellent demos, including the *Voyage 1993 Megademo*.
- Moving Pixels – which includes Face Hugger, author of the brilliant megademo that bears his name. MP are also responsible for the recent *MOPS* megademo.



Face Hugger's *Lemmings*.

- Logon System (France) – responsible for the landmark *The Demo*, which was widely accepted as the best for many years.
- HJT (Germany) – which includes Odiessoft, author of many highly original demos and soon to release a megademo.

So, which are the best? If you haven't seen a demo before and would like to find out if you hate them or not the best ones to check out are:

- *The Voyage 1993 Megademo* – my favourite. A massive demo with great style.
- *Face Hugger's Ultimate Megademo* – brilliant 3D animation and virtually no boring scrollies.
- *The Demo* – the original megademo. No longer the best, but still worth a look.

That's it, all you should ever need to know about demos. As Motty would say, CASE SOLVED!



Did anybody see *Excalibur* on TV a few weeks back? Tripe, wasn't it?

The Examiner

East of the sun and west of the moon lies a realm known as the *AA* adventure pages. Lord of this realm is Debbie Howard, for it is she who decrees which adventures make the grade. Take heed, or end up playing a pile of old laundry...

ANGELIQUE – A GRIEF ENCOUNTER

FIFTH ADVENTURE IN A SET OF FIVE

REVIEW

PRICE: Tape/disc £2 per adventure or £8 for all five *Arnold* adventures on one disc (you can only buy the set of adventures on disc).
DISTRIBUTOR: WoW Software, 78 Radipole Lane, Dorset, DT4 9RS. CHEQUES/POSTAL ORDERS PAYABLE TO: JG Pancott.

"Of course," Wilhemina continued, "Humpty Dumpty was an expert in the shady arts. He said that words meant precisely what he wanted them to mean, neither more nor less!"

Her dry, cryptic advice meant less than it perhaps should. My thoughts were on a problem of immediate importance, like how do you divide three parachutes equally between four?

Arnold, my darling Arnold, displayed his endearing quality of eccentricity by attempting to move the Egyptian pilot from the controls, helping me on with the best of the 'chutes, nodding agreement to Wilhemina and chewing a cheroot all at the same time!

In triple-vision I saw the colours of the Black Watch flash by (*hang on – have we missed a chapter here or something? What the flaming fajitas is triple vision?– Dave*). I caught a glimpse of a radiant Wilhemina floating upwards (*upwards? – Dave*), and then I felt an icy shiver as I saw myself descend rapidly into a crater (*whoever she is, she's been on the booze – Dave*). The crater of a volcano, that is!



Not the best place to parachute into, but that's what you do in *A Grief Encounter*.

Hanging in the straps, with the 'chute caught on the narrow opening, I dwelt for a moment on the chances of ripping it to shreds and making a rope so that I could climb out (*not sensible; why not just climb up the parachute? – Dave*). But then the straps broke. The 'chute travelled upwards in a gust of wind. I landed most inelegantly in a pile in a pile of lava dust, unhurt.

I sobbed for him (*who? Arnold? The Egyptian pilot? Peter Cushing? – Dave*), shed a tear for myself, and then summoning up courage, I hummed to myself, "Lava come back to me."

I recalled the words of Wilhemina, and deliberated on my real belief of the universal mind. And I called inwardly for you (*who, me? – Dave*). I have this terrible fear of losing Arnold before I can tell him just how much I do care.

And so begins another Arnold Blackwood adventure (*and I thought we'd blundered into the middle of a James Herbert novel – Dave*). The start of this adventure is a bit tricky as there are no apparent exits – all you have is all you hold, and you'll be occupied for hours trying to use each and every item to discover which one is the key to your escape so that you can begin your quest to find Arnold. However, a small pointer in the right direction might help you here (*upwards, I would have thought – Dave*). It's not so much what you are carrying as what you are wearing that will have you climbing out of trouble in no time. A good mind for puns and a vivid imagination is definitely needed!

Even though you take the role of Angelique, Arnold's star-crossed lover, you seem to spend most of the adventure trying to look like something you're not. All is made clear eventually but you have to be patient.

Overall, it's a pleasing enough adventure and worth the purchase price. It's good clean fun and written with a wicked sense of humour, as are all the *Arnold* adventures. It's no adventure for beginners, but if you're looking for a bit of a challenge this one's for you!

79%

ESCAPE FROM THE PRISON PLANET

REVIEW

PRICE: £5
FORMAT: Disc only. 464, 6128 and PCW.
DISTRIBUTOR: WoW Software, 78 Radipole Lane, Dorset. CHEQUES/POSTAL ORDERS PAYABLE TO: JG Pancott.

You have been found guilty by the Federal Court on Planet

Lords & Ladies of Adventure

If you're stuck on one of the games listed below, don't despair. You can seek help. Write to the member of the adventuring aristocracy whose name appears after the game you need help with, and they'll give you a few hints to help you out. Please remember to enclose a SAE with your enquiry and DON'T ask for a full solution, because you'll probably be disappointed. On the other hand, if you reckon you know an adventure inside out and want to be knighted and have your name added to the list of Lords and Ladies write in to Lords and Ladies, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

- ***Five On A Treasure Island*** **– Tommy MacDonald, 7 County Cottages,**
- ***Piperhill, Nairn, Adult 2, Bew Bews, Blue Raider 2, Can I Cheat Death? Doomlords 1-3, Dick-Ed, Escape From The Planet Of Doom, Firestone, Jason And The Argonauts, Lords Of Time, Nite-Time, Red Moon, Spaced-Out, Welladay, Yawn*** **– Paul White, 18 Conifer Road, Coxford, Southampton, Hampshire, SO1 6FX.**
- ***Shard Of Inovar, Five On A Treasure Island, Holiday 2, Mell, Hobbit, Lords Of The Rings, Shadows Of Mordor, all Dizzy Games*** **– Andrew Hughes, 12 Colliers Close, Woodhouse, Sheffield, South Yorks, SY3 7DE.**
- ***Boggit, Big Sleaze, Forest At World"s End*** **– Bernard O'Leary, Lotamore, Glanmire, Co. Cork, Eire.**

COMING SOON...

Raiders Of The Lost Tomb **is the latest adventure to be released from WoW software. It's been written by Peter Clerk, another of whose games is reviewed in this section this month. It was created using *PAW*, though Lorna Paterson will be converting the adventure over to *GAC* so that tape users can play the adventure too; by the time you read this both version should be available.**

Communications

Dear Examiner,
I am having a lot of trouble in the adventure *Smashed*. Could you please tell me how to operate the chopper? I can get in it all right but I can't seem to start it. Also, when you are left outside the minefield and you are meant to find the missing officer I keep getting lost. And in *Lifeterm* I don't know how to even begin the game. On the cover of *4 Most Adventures* it seems to suggest that a space craft is landing. Can you tell me how to get to this point?
David Faulds, Argyll.

The commands that you are looking for in *Smashed* are ENTER CHOPPER, SWITCH ON, and PULL JOYSTICK. To find your way out of the maze go SOUTH, SOUTH WEST, SOUTH, SOUTH, SOUTH WEST, WEST. In *Lifeterm* you don't actually say why you can't get on with the game so it's pretty difficult to help you – if you want to get the spacecraft landing part of the game you will just have to be patient and play your way through. However, just to start you off here are the first few commands; DOWN, SEND SOS, WEST, WEST, EAST, UP, DOWN, UP, LOOK, LOCK PILOT IN STOREROOM, SEND DROID TO SHIP, WEST, WEST, GET ID CARD. Now you are on your own, good luck! **Debbie**

Dear Examiner,
When the *Graphics Adventure Creator* (*GAC* for short) was on the *AA* covertape there were adverts in *AA* for a booklet that went with it. Can you please tell me where I can get hold of one of these booklets?
Sarah Chacey, Kent.

I've had a few enquiries about the *GAC* booklet. Unfortunately, you should have obtained it when you could, because it is no longer available (there must be a moral in there somewhere). Perhaps someone somewhere has a copy that they no longer want in which case you should advertise in *Adventure Probe* or other adventure fanzines for a copy, and I'm afraid it's just a case of wait and see. **Debbie**

Where to go

If you're looking for new and re-released adventures, then drop these people a line (enclosing an SAE, of course) for their latest stock lists.

- **WoW Software, 78 Radipole Lane, Weymouth, Dorset. DT4 9RS.**
- **Adventure Workshop, 36 Grasemere Road, Royton, Oldham, Lancashire, OL2 6SR.**
- **Amstrad Adventure Solution Service, 10 Overton Road, Abbey Wood, London, SE2 9SD. (This service is what it says and does not sell adventures).**

Earth of a serious crime.
However, because the jury's decision was not unanimous, Article 27 of the Greater Laws of Earth have been invoked by your defence lawyers (all good LA Law-type stuff). This means that you will be transported to the Galactic Prison Planet and will be given the chance to escape and return to Earth where, if you are successful you will receive an official pardon (bizarre legal system – talk about not wanting to take responsibility for your decisions).

This is the long-awaited review of one of Peter Clark's long-awaited *PAWed* adventures, and I hope that I can do justice to the excellent game that Peter has produced.

When I first started playing *Escape* I thought that it would be more suitable for novice adventurers, because most of the puzzles seemed to be a straightforward case of examining, picking up and using the items that are dotted around the playing map; it wasn't exactly advanced adventuring at it's most challenging.

But then things take a decidedly more complex turn. As the adventure progressed the puzzles became more difficult and far more interesting. What particularly endeared me to this adventure was that the location descriptions are so detailed and well written. They not only add to the atmosphere, but they often give you subtle but vital clues about what you need to do next. This is a clear case of READ ALL, EXAMINE ALL.

As it is a two-part adventure, you are required to save part one in order to continue on into part two and finish the adventure. The commands LOOK IN/UNDER/BEHIND are well used, and I could find no difficult verbs or nouns needed to solve the puzzles (so you can throw away your Thesaurus). But that doesn't mean the adventure is a pushover, so don't be fooled! In some places you are required to enter more than a verb/noun input; for example, at one point you need to type in INSERT TOKEN INTO SLOT. But you are prompted for a more descriptive input at the correct time, which is very handy.

This has got to be one the finest adventures that I have played in a very long time. If I had to find a fault it would be that it is for disc users only at the moment, but hopefully this glowing review might encourage WoW Software to release it on tape. Tape users deserve it.

92%

CLUEPOT

A big thank you goes to S Kempin from Leicester, Ross Younger from Edinburgh, Peter Clark from Ipswich and Phill Ramsay from Manchester for this month's hints and tips. Strangely enough, they are all men. So girls don't let the side down – send in your hints and tips to Cluepot, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon, BA1 2BW.


Are these supposed to be cute?

Dances With Bunny Rabbits

ITEM	LOCATION	USE
Clothes	Timmy's Wardrobe	Wear them
Cookie Jar	Kitchen	Fill with water at lake
Cookies	In Jar	Eat (Find Key)
Carrot	Kitchen	Help sight in cave
Short Stick	Outside House	Throw to dog and use at snake
Mum's Dress	Parents' bedroom	Wear in lake for help
Horse	West end of town	Ride from town
Rifle	Push sniper off roof	Give to Indian
Magazine	Inside safe (Office)	Show To Lulu
Bottle	Bar in saloon	Hit Man In Saloon
Saddle	Man in saloon	Ride Horse
Gun	Under Timmy's bed	Shoot Arab
Key	In cookie jar	Open cabinet
Ring	In cabinet	Cut mirror
Hankie	In cabinet	Drop for help with bootees
Mirror	In hotel	Give second Indian
Match	Indian	Melt wax in pot (mine)
Dagger	In pot (mine)	Wave at man (in ante-chamber)
Genie	Rub lamp	Inside mine tunnel

Darkest Road

- Examine everything thoroughly (more than once if necessary).
- Wear the shoes when you enter the forest.

First Past The Post

- Push the gnome's nose.
- Search the bench to find the oil can.

Five On A Treasure Island

Just for laughs – as Dick, go through the grill in the underground cavern but make sure there isn't a rope at the bottom of the well. Then find Julian and see what happens.

Hades

Follow Hercules' example to get past Cerberus.

Heroes Of Karn

- Beren will kill the serpent with the falcon.
- Use the spear on the Hyra.
- Put the bear to sleep with the honey.
- Play the flute to the Balrog.
- Get Istar to read the scroll.

Cheat mode

They never knew what hit them. In fact, they didn't even realise anything had hit them. Because they were invincible. They were indestructible. They were eternal. They were, in fact, games characters being controlled by someone smart enough to take heed of Lee Rouane's advice. Not a bad way to earn a crust.

RENEGADE

Kicking off this month in great style (*it's the way he tells 'em – Dave*) is Christopher Paul Griffiths of Bedminster with a whole wad of tips for one of the best beat-'em-ups ever, *Renegade*. Take it away Chris me old mucker.



The subways are a maze of danger.

Level 1: The Subway

When dealing with the black muggers, back-kick them and then fly-kick them from behind, they die instantly. Try this on the white men and they will still need to be KO'ed one more time.

● **How to handle the boss:** back-kick or fly-kick him from close range. If you try to punch him, he'll smash you to pieces. Not a nice man.



But some people just won't listen.

Level 2 : The Pier

To deal with the bikers, just fly-kick them. When the H-A's come, they act the same as the white muggers from level one, so dispatch them in the same way.

● **How to handle the boss:** it's safe to punch him but it takes around seven or eight hits to kill him outright. Be careful, though – if you fluff up a back-kick, he'll floor you without hesitation.

Level 3: The Street

Remember the tips from level one, but with the ladies it's vice-versa (use the black mugger technique on these devil women).

● **How to handle the boss:** Bertha is a very tricky customer. At long range, she will try to ram you. To deal with this, fly-kick her before she reaches you. Only back-kick her from a very close range. Do not punch her as she is faster than you.

Level 4: End Street/Interior

When dealing with the knifemen, use any tactic, no matter how underhand. Be just as underhand this when you get in the flat.

● **How to handle the boss:** if he is at long range, he will shoot you, but from close range he will only kick you. It is safe to punch him and he takes around seven to eight hits.

● If you kill the last boss you get 10,000 points and an extra life. Which is handy because then you have to start again, but this time around the going gets much tougher.

DRILLER

Michael Goudman from Penkridge has written pleading, nay, begging for us to reprint the *Driller* pokes featured aeons ago. Well, here are two brilliant POKEs for your inspection – because you didn't specify wether you wanted a disc or tape version. This two-for-the-price-of-one stuff is a rare occurrence because Cheat Mode space is valuable. Please, when you write in, tell us whether the game you want a cheat for is on tape or disc.

```
FANL 100·'Driller·-·tape
FAPJ 110·'by·Tony·Hoyle
AAKN 120·'
DAAJ 130·MEMORY·&1FF
FAFJ 140·DATA·DD,7E,00,32,E5,BE
FADJ 150·DATA·2A,38,BD,22,E3,BE
FAKI 160·DATA·21,FF,3F,22,38,BD
FAMF 170·DATA·21,9B,BE,22,01,40
FAFH 180·DATA·C3,05,40,AF,32,E6
FANJ 190·DATA·AC,21,AD,BE,22,4B
FADL 200·DATA·AC,2A,E3,BE,7C,E6
FABJ 210·DATA·3F,67,E9,21,E5,BE
FADI 220·DATA·CB,46,28,0D,AF,32
FAME 230·DATA·B0,68,32,55,67,32
FABJ 240·DATA·F4,6B,32,87,6D,CB
FAAG 250·DATA·4E,28,19,3E,18,32
FAAI 260·DATA·B8,6B,32,54,6D,3E
FAHF 270·DATA·01,32,B9,6B,32,55
FAGJ 280·DATA·6D,CB,56,C8,3E,18
FAHG 290·DATA·32,FE,53,3E,01,32
FADL 300·DATA·FF,53,C9,D4,CD,C8
DAEI 310·DATA·82,71,66
FADI 320·FOR·n=&BE80·TO·&BEE2
CAHH 330·READ·a$
EAOO 340·POKE·n,VAL("&"+a$)
BAHP 350·NEXT
BAOJ 360·x=0
MABB 370·s$="Infinite·shields·and·energy"
CAHP 380·GOSUB·480
FAKH 390·IF·a·THEN·x=x·OR·1
KAOO 400·s$="Place·drills·while·in·jet"
CABP 410·GOSUB·480
FAFH 420·IF·a·THEN·x=x·OR·2
JAGJ 430·s$="Start·game·inside·jet"
CAEP 440·GOSUB·480
FAKH 450·IF·a·THEN·x=x·OR·4
BAMP 460·LOAD"
DAAL 470·CALL·&BE80,x
BAOJ 480·CLS
DABA 490·PRINT·s$
FAJB 500·a$=LOWER$(INKEY$)
HAMD 510·IF·a$="y"·THEN·a=1:RETURN
HABD 520·IF·a$="n"·THEN·a=0:RETURN
CAGK 530·GOTO·500
BAAJ 540·END
```

```
FAOL 100·'Driller·-·disk
FAPH 110·'By·Tony·Hoyle
AAKN 120·'
FACJ 130·DATA·DD,7E,00,32,D4,BE
FAKC 140·DATA·11,00,00,0E,41,21
FAKH 150·DATA·00,01,DF,D5,BE,21
FABI 160·DATA·9A,BE,22,3D,02,C3
FANH 170·DATA·00,01,3A,D4,BE,5F
```

The Manic multipoke mania zone

A nice breath of fresh air this month as J (Jacob?, Jehovah? Judgement?) Hoggan from Pentrechwyth, Swansea has brought quite a few new pokes to light and for this we thank him. Enough of the praise now, how about sending us some more J? (Juniper? Jellybean? Jagged?). You know the address – Cheat Mode, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Game Name	Format	Poke, Addr	Effect
IK+ (Champs edition)	Tape	27C0,00	Infinite fighting time
		2BA4,00	One level game
		4431,00	Everybody is invincible
		5456,00	Long arms on bonus level
		2DE3,C9	Continue from where you last died
		2DBB,x	x = level increment number
		4707,C9	No scores
		46AF,C9	No points
		46C6,x	x= points for a win (01 to 07)
		2DCE,00	No bonus round
		2DCE,x	x = levels between bonus rounds

CONFUSED BY LISTINGS?

Don't panic if you've never typed in a listing before and you can't seem to get them to work. Some *AA* type-ins are a bit special, you see. There's a full explanation of how to type in the darned things and what the four-letter codes at the beginning of each line mean on page 20 this month.

```
FAFI 180·DATA·CB,43,28,0D,AF,32
FABF 190·DATA·B0,68,32,55,67,32
FANI 200·DATA·F4,6B,32,87,6D,CB
FAAF 210·DATA·4B,28,10,3E,18,32
FAMH 220·DATA·B8,6B,32,54,6D,3E
FADF 230·DATA·01,32,B9,6B,32,55
FAGI 240·DATA·6D,CB,53,28,0A,3E
FAHG 250·DATA·18,32,FE,53,3E,01
FAII 260·DATA·32,FF,53,C3,9F,48
FABF 270·DATA·00,3C,C0,07,82,71
CAAG 280·DATA·66
FANI 290·FOR·n=&BE80·TO·&BED7
CAEH 300·READ·a$
EALO 310·POKE·n,VAL("&"+a$)
BAEP 320·NEXT
BALJ 330·x=0
MAOA 340·s$="Infinite·shields·and·energy"
CACP 350·GOSUB·460
FAHH 360·IF·a·THEN·x=x·OR·1
KAEP 370·s$="Place·drills·while·in·jet"
CAFP 380·GOSUB·460
FALH 390·IF·a·THEN·x=x·OR·2
JADJ 400·s$="Start·game·inside·jet"
CAPO 410·GOSUB·460
FAHH 420·IF·a·THEN·x=x·OR·4
PACI 430·PRINT"Insert·Driller·disk·and·press·
     space"
GAAJ 440·WHILE·INKEY(47)=-1:WEND
DAOK 450·CALL·&BE80,x
BAMJ 460·CLS
CAPP 470·PRINT·s$
FAAC 480·a$=LOWER$(INKEY$)
HADE 490·IF·a$="y"·THEN·a=1:RETURN
HAPC 500·IF·a$="n"·THEN·a=0:RETURN
CALK 510·GOTO·480
BAOI 520·END
```

Don't you hate people who hog the middle lane?



BURNIN' RUBBER

Getting into top gear next is Chris Roushias with this excellent tip for *Burnin' Rubber*, a game which probably more CPC owners have got than any other (but then, Plus owners didn't really have much of a choice in the matter).

- First qualify for the race, but, when the race starts, don't move from the starting grid (hah, stalled again).
- When the time is up the computer registers that you have completed the course (must be a pretty thick computer).



Look what I just trod in!

RAINBOW ISLANDS

A second contribution now from Christopher Paul Griffin, this time for one of *AA*'s all-time favourite games (*if you haven't got it, why not? – Dave*) *Rainbow Islands*.

He suggests that when you reach the top of a stage you should build rainbows and then jump off them into the top of the screen. When you build the last rainbow at the top, hold on to the jump control and watch the points mount up.

GAUNTLET

Tony Parker and Donna Packer, our beloved covertape hackers from Lowedges have written with a request this time, not with a POKE. They write asking for a *Gauntlet* disk poke. Well, you're in luck folks as here's one just waiting to be typed in:

```
Filename:GACHT
FAHM 100·'Gauntlet·Disk
HAON 110·'By·Richard·Monteiro
AAKN 120·'
IAKM 130·MODE·2:INK·0,0:BORDER·0:·GOSUB·410
LAKJ 140·PRINT"G·A·U·N·T·L·E·T··P·O·K·E·S":PR
     INT:PRINT
CBCH 150·PRINT"Prevent·Generators·creating·th
     e·enemy?·(Y/N)";
MANE 160·a$=UPPER$(INKEY$):IF·a$<>"Y"·AND·a$<
     >"N"·THEN·160
EABL 170·PRINT·a$:PRINT
FBIA 180·PRINT"Stop·yourself·dying·when·healt
     h·reaches·zero?·(Y/N)";
MAGF 190·b$=UPPER$(INKEY$):IF·b$<>"Y"·AND·b$<
     >"N"·THEN·190
EAMK 200·PRINT·b$:PRINT
JBGO 210·PRINT"Turn·enemy·invisible·-·only·Ph
     antoms·will·now·cause·damage·(Y/N)·?·";
MANE 220·c$=UPPER$(INKEY$):IF·c$<>"Y"·AND·c$<
     >"N"·THEN·220
EAAL 230·PRINT·c$:PRINT
LBDD 240·PRINT"Turn·yourself·invisible·-·the·
     enemy·is·still·attracted·by·you·(Y/N)·?·
     ";
MAGH 250·d$=UPPER$(INKEY$):IF·d$<>·"Y"·AND·d$
     <>"N"·THEN·250
EAEL 260·PRINT·d$:PRINT
ABFK 270·PRINT:PRINT"Is·this·to·your·satisfac
     tion·(Y/N)·?"
MAPF 280·e$=UPPER$(INKEY$):IF·e$<>"Y"·AND·e$<
     >"N"·THEN·280
FAGC 290·IF·e$="N"·THEN·RUN
GBMH 300·PRINT:PRINT"INSERT·THE·GAUNTLET·DISK
     ·INTO·DRIVE·A·WITH·THE·WRITE-PROTECTION·
     OFF"
PAMF 310·PRINT:PRINT"Press·a·key·when·ready..
     .":CALL·&BB18
LACP 320·CALL·&4000:a=&613A:b=&613D·:c=&611B:
     d=&611E:e=&CD
JADJ 330·a=&613A:b=&613D:c=&611B·:d=&611E:e=&
     CD
FBCF 340·IF·a$="Y"·THEN·POKE·a,0:POKE·a+1,0:P
     OKE·a+2,0·ELSE·POKE·a,e:POKE·a+1,&B5:POK
     E·a+2,&8C
FBHD 350·IF·b$="Y"·THEN·POKE·b,0:POKE·b+1,0:P
     OKE·b+2,0·ELSE·POKE·b,e:POKE·b+1,&20:POK
     E·b+2,&94
FBJF 360·IF·c$="Y"·THEN·POKE·c,0:POKE·c+1,0:P
     OKE·c+2,0·ELSE·POKE·c,e:POKE·c+1,&F0:POK
     E·c+2,&A2
FBLE 370·IF·d$="Y"·THEN·POKE·d,0:POKE·d+1,0:P
     OKE·d+2,0·ELSE·POKE·d,e:POKE·d+1,&13:POK
     E·d+2,&87
CAIP 380·CALL·&401F
HBHA 390·PRINT:PRINT"POKES·NOW·SAVED·TO·DISK"
     :PRINT:PRINT·"Press·a·key·to·play·game"
EAJJ 400·CALL·&BB18:|CPM
LAMN 410·FOR·z=&4000·TO·&4064:READ·y$:POKE·z,
     VAL("&"+y$)
GAHI 420·x=x+VAL("&"+y$):NEXT·z
OAHN 430·IF·x<>7668·THEN·PRINT"·ERROR·IN·DATA
     ":STOP·ELSE·RETURN
JAKH 440·DATA·21,5d,40,cd,d4,bc,22,5e,40,·21,
     61
JACE 450·DATA·40,cd,d4,bc,22,62,40,21,00,·60,
     1e
JAKB 460·DATA·00,16,18,0e,11,df,5e,40,c9,·21,
     00
IAJO 470·DATA·60,1e,00,16,18,0e,11,df,62,·40,
     21
JAFE 480·DATA·00,70,1e,00,16,1c,0e,11,df,·5e,
     40
IAMP 490·DATA·3e,29,87,32,0c,70,d6,02,32,·0d,
     70
JANA 500·DATA·d6,03,32,0e,70,1e,00,16,1c,·0e,
     11
JALH 510·DATA·21,00,70,e5,d5,df,62,40,d1,·e1,
     0e
IAOL 520·DATA·12,df,62,40,c9,84,00,00,07,·85,
     00
CAFO 530·DATA·00,07
```

CHEATS APPLY WITHIN

Nobody likes a cheat. Except us here at *AA*. We love 'em. We make stars out 'em. We put 'em on pedestals so high they need oxygen and then we prod 'em with long sticks. So if you're a cheat, shunned by the rest of society, send us a sample of your wares and you never know – you could be on your way to the very top of the showbusiness butter mountain. Write to: Cheat Mode, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW. You know it makes sense.

SIM CITY

The following few tips (up to *Wizard Warz* on the next page) all come from an irate Aussie called Steven Grandile from Perth. Judging by his letter, these are the only games available in Australia!

Brownouts in *Sim City* happen when your power station can no longer power all of your

city. To combat this, build more power stations or reduce the size of your city.

NEMESIS

Start a two-player game and if you pass a stage while playing as player two you will start from that level in the next game.

SAVAGE

Level codes are : SABATTA for level two and FERGUS for level three.

WIZARD WARZ

First make a map of level one. Make sure that you get the yellow magic barrier as this makes you invincible to any opponent. Remember to stay out of the water. On level two fight the bat-thing with the ring through its nose first as he gives you a spell to steal other characters' spells.



Yeucch – that candy floss recipe went wrong again!

TAG TEAM WRESTLING

Completing his hat-trick of tips this month is Christopher Paul Griffin with a grappler of a tip for *Tag Team Wrestling*.

He informs us that to be the best you should choose Groucho and Juagen Meatball because Groucho has the hardest kick of the lot. If you use Groucho and his kick correctly you can win the match in record time.

ARE YOU IN NEED OF HELP?

Frustrated? Tense? Irritable? Pressure getting too much? Watching *Punt and Dennis* and finding something to laugh at? You need help. And if the root of your psychological trauma is a game, then Lee Rouane's the man to turn to (well, that's after you turned to Punt and Dennis, pulled a gun and put everyone out of their misery).

Send Lee a letter with details of the game you're stuck on, what's causing the problems and what flavour of cheat you'd prefer. The address, by the way, is HELP!, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

HELP!

**Dear Cheat Mode,
Please can you help me with the following games (no multiface pokes please)? *Captain Dynamo* and *Nebulus*.
*Meiron Boudier, Penarth, South Glam'.***

The best tip I can give for *Captain Dynamo* is don't play it. But facetiousness aside, here's the listing you ordered, sir.

```
GAAO  100·'·Captain·Dynamo·····
FAEH  110·'·By·Lee·Rouane
GADL  120·'·Infinite·lives··
GAPC  130·'·Pause·and·quit
HABG  140·'·To·increase·level
AANN  150·'
DANN  160·DATA·21,09,bf
DAJN  170·DATA·22,8b,a0
DAMN  180·DATA·c3,28,a0
```



Captain Dynamo – why bother, frankly?

```
CAMI  190·DATA·a7
DAJK  200·DATA·32,1d,47
DAIH  210·DATA·21,12,49
DADO  220·DATA·22,fd,69
DAHK  230·DATA·c3,00,46
DAGK  240·MEMORY·&A000
FAIH  250·FOR·x=&BF00·TO·&BF15
FAPJ  260·READ·a$:a=VAL("&"+a$)
EAGI  270·POKE·x,a:NEXT
EAFJ  280·LOAD"loader"
DAFA  290·CALL·&BF00
```

As for *Nebulous*, press these combinations of keys during play to increase the level.

RET and CLR and then:

E and D – Slippery Slide

R and F – Swimmers' Delight

U and J – Edge Of Doom

And It's as simple as that. **Lee**

**Dear Cheat Mode,
Any help on *Rainbow Islands* would be absolutely brilliant. Go on, I reckon you owe it to me after all those tips I've given you.
*Christopher Paul Griffiths, Bedminster, Bristol.***

Actually this question can (conveniently) be answered by Meiron Boudier who writes in saying that to get into the secret rooms you need to collect all the crystals in order to be allowed entry. This should also answer a question in HELP! a couple of months back. Next! **Lee**

**Dear Cheat Mode,
I wonder if you can help me. I am stuck on Turbo the *Tortoise* and I don't know what to do. I can get as far as the punky looking boss and then he just wipes me out. What can I do?
*Jamie Leslie, Wales, Sheffield.***

It sounds like you are in a right mess, Jamie. Follow this guide to bring about your hated guardian's downfall. Dodge his first lunge and then jump on to the left-hand platform. Then when he approaches jump off and land on his head. Bounce off and run to the right-hand side platform and do the same again. Repeat this procedure to finish the level. **Lee**

**Dear Cheat Mode,
I have recently become interested in an old game called *Armageddon Man* by Martech but I can't work out any of the frequencies that are needed to intercept scrambled messages. It's driving me mad!
*David Chaffer, Beeston, Notts.***

Unfortunately David I know not of these frequencies of which you speak. But fret not, because I have found a man who does. Take it away Richard Ormson:

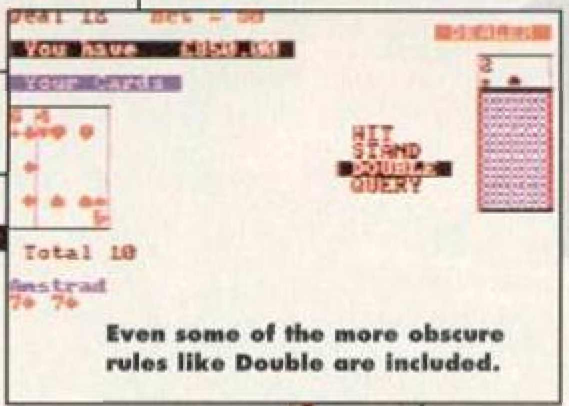
Argentina	0,1,2,3,4,5,6,7
Australia	0,2,4
Black Africa	4,5,6,7
Canada	2,3,4,7
Central America	1,3,5,7
China	0,4,7
Eastern Block	2,4,6
Euro Unite	4,5,6,7
India	4,5,6,7
Israel	1,3,5
Japan	2,3,5,6
Islamic Alliance	1,3,5,7
Libya	1,2,3,4,5,6
Pakistan	1,2,3,4
South Africa	2,3,7
USA	0,2,4,6

And that wraps it up for this month. **Lee**

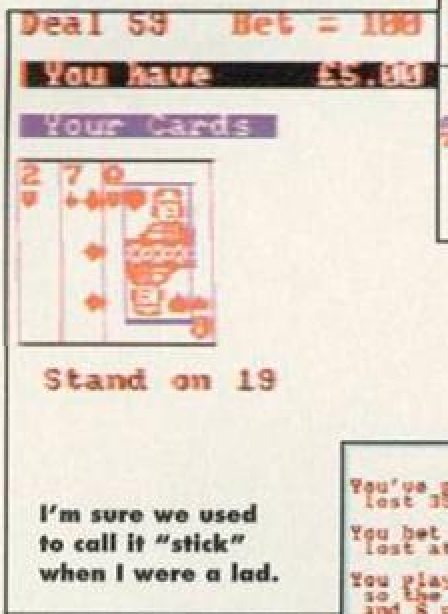
Black Jack & Cribbage



If Simon's got £770 he can buy a round for a change...



Even some of the more obscure rules like Double are included.



I'm sure we used to call it "stick" when I were a lad.



These *Black Jack* stats are handy, but they'd be better presented in the form of charts, we reckon.

Ever since he saw Maverick Dave's considered himself a bit of a card-playing genius. But has he met his match in these games?

This review is going to be difficult. Not because the games are particularly tricky to play or explain. Not because I've broken my fingers and can't type. Not even because they're rubbish and I hate being needlessly destructive (because they aren't and I love being needlessly destructive).

Nope, this review is going to be difficult because I've got to try and get through the page without collapsing into sub-*Carry On* humour amidst a great deal of childish sniggering. Look, it's not my fault. I know Cribbage was invented 350 years ago, and words had different connotations back then, but you've got to admit, it's hard to keep a straight face when your computer keeps asking if you want to score, "One for his nob."

Let's face it *Cribbage* is a darned odd game, period with all that knocking (oo-er – oops, sorry, forget I said that), and shouting out things like, "Fifteen six and six for three sevens makes twelve." Black Jack is much more sensible, the only problem being that whenever you play it with someone new you always find that they play using slightly different rules – "Splitting? What do you mean, splitting."

But just in case you're worried that either of these games don't conform to the rules that you play by, don't panic. Both games can be customised to include just about every variation of the rules imaginable. *Cribbage* offers everything from five-card to eight-card games and the choice of letting your opponent swipe half your score if you bodge up your sums at the end of a hand.

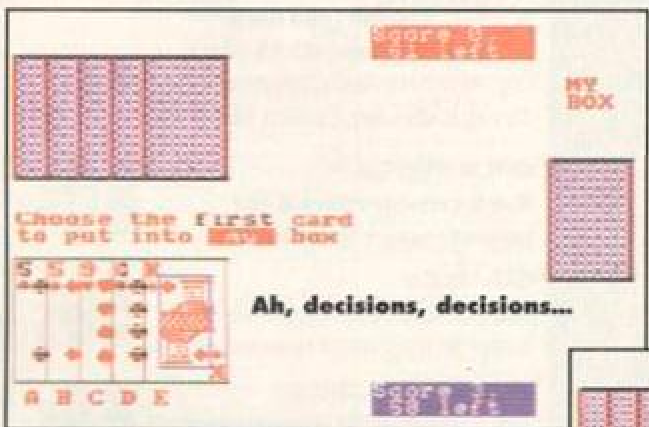
Black Jack can be played with up to four people, with the computer as the dealer (and you can't help feeling it cheats, but then you always feel that about the dealer). You can even play with the computer controlling one of your opponents as well as the dealer (sounds dodgy). You decide on how much dosh you want to start with, and how much you want to bet each time, and the game carries on until you either run out of money or get bored.

At the end of a sesh' you can check out statistics showing you how well (or badly) you've done. It would have been nice to have these presented in some form of a chart, but even in dull old text form, they still make for interesting reading.

The *Cribbage* game is a great deal more interesting, because, by the very nature of *Cribbage*, there is a goal to achieve – a certain score (which varies depending on how many cards you play with). You have to play against the computer, and it's a pretty sharp player, so be warned. There is a practice mode, which is dead handy if you're new to the game – it's a great way to learn the complex (and bizarre) rules.

On the gripes side, the presentation of both games leaves a bit to be desired; it's utilitarian to the point of Puritanism. To be honest, I would expect a lot more for a hefty £14.99. And the computer takes its time when playing eight-card *Cribbage*.

Apart from that, these are both competent versions of classic card games. They're good introductions to the games for novices, and the computer plays well enough to keep old hands preoccupied. It's just a shame about the price tag – it's way too high. I'd place a bet that if Sentinel halved the price, they'd more than double their sales. It's a gamble they ought to consider taking. **Dave**

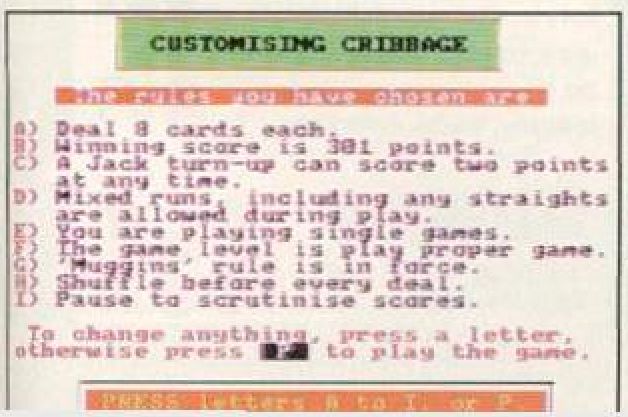


Ah, decisions, decisions...



What is all this knocking nonsense?

Rules are made to be broken, apparently – but try telling that to your CPC.



VERDICT

FORMATS: 464/6128/Plus
PRICE: £14.99
DISTRIBUTOR: Sentinel Software, 41 Enmore Gardens, East Sheen, London SW14 8RF.

GRAPHICS 35%
Just because they're card games they don't have to look this dull

SONICS 25%
Irritating little pings that the game would be better off without.

GRAB FACTOR 65%
They're easy to get into, friendly and immediately playable.

STAYING POWER 75%
If you like the original games, this should keep you amused for a while.

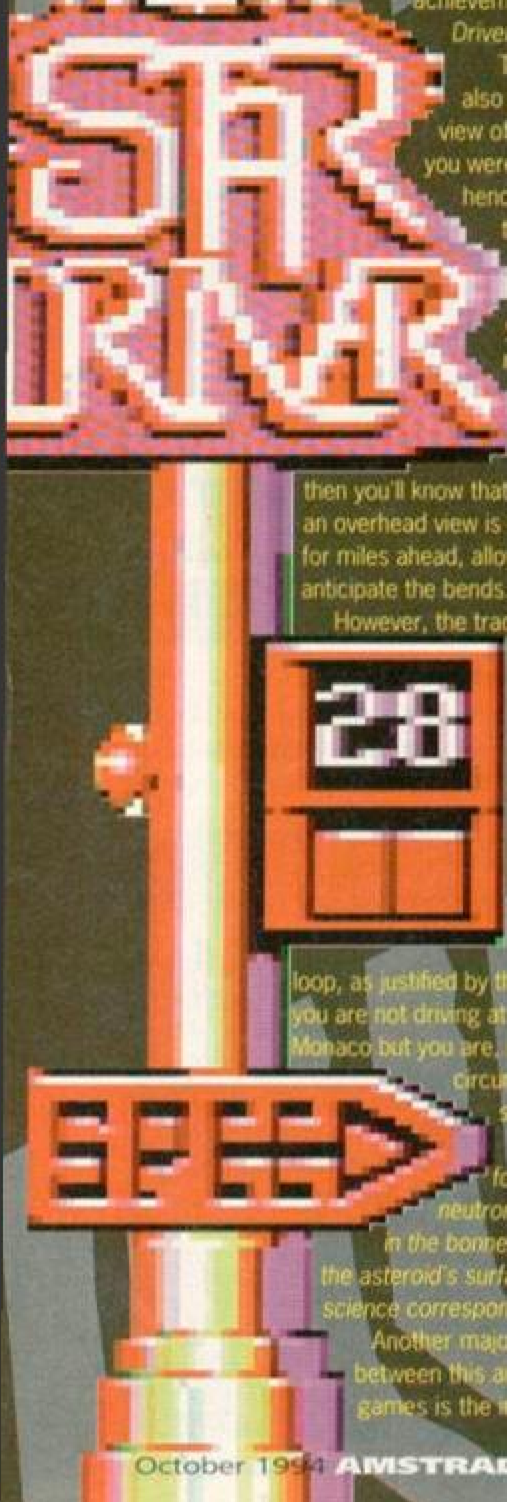
RATING 64%
Good enough games, but the price is way too high.

Star Driver

And they're off, in the way-out wacky races... Well, the action's way-out in space, and it's certainly weird, as Zy Nicholson found out...

What makes motor racing such a thrill? The speed, the danger, the buzz of having the world in your face? Or is it the free glassware at the petrol station? Whatever the attraction, there's certainly never been a shortage of racing games on the CPC. So what's new about this one to justify its existence? Well, it's all set in space for a start.

As the automatic (and inescapable) demo sequence boasts, *Star Driver*'s main attraction is its excellent three-dimensional scrolling of the track. In fact, it would be more accurate to describe it as scaling rather than scrolling: objects on the horizon first appear as a mere slip of a pixel but grow as they approach you, until you can make out shapes and details. It's remarkably similar to the Super Nintendo's infamous 'Mode 7' sprite manipulation technique. Except here it's being reproduced on your CPC – ha! There's no denying the technical achievements of *Star Driver*'s programming.



The scaling routine also gives a unique view of the track, as if you were a Bond villain's henchman pursuing the car in a sleek black helicopter . If you've seen the networked *Virtua Racing* machines in the arcades then you'll know that the advantage of an overhead view is to reveal the road for miles ahead, allowing you to anticipate the bends.

However, the tracks in *Star Driver* remain fairly straight throughout: good steering is really only a matter of swerving slalom-fashion. The tracks don't so much lap as loop, as justified by the reasoning that you are not driving at Santa Pod or Monaco but you are, in fact, circumnavigating a small asteroid. *(Thank heavens for that high-G neutron star fragment in the bonnet holding you to the asteroid's surface – our science correspondent).*

Another major difference between this and other driving games is the incredibly thin



The windows are a bit small in two-player mode.

track, which is less than twice the width of the car in places. Most racers give you more leeway, but force you to find the optimum line for taking a bend. In *Star Driver* it's like racing down a narrow country lane, only to encounter the local gymkhana group's Range Rovers parked in a line down one side.

If the way I've just described *Star Driver* makes it sound quite exciting I have tragically misled you. You see, another feature of these asteroids is that every indigenous object has a bizarre frictional coefficient *(approaching 1, SI Unit fans! – our science correspondent again)* so that scraping against any



You get to view the course before a race.

obstacle will decrease your velocity. Sensible enough, you might think, but the slightest frisson can bring your car to a standstill. Worse, dangerous encounters with solidity can damage your car and even destroy it.

Perhaps I ought to define my use of the word 'obstacle' here. Water, road barriers, rocks, sure, you expect those: but turf? Puddles? Flowers? Basically, anything off the track is an obstacle. If I crash into a barrel then I expect to lose speed, but grinding to a halt just because my left wheel has snagged a blade of grass is frustrating in the extreme.

My real disappointment lies in the fact that the programming is more than just competent. The scaling routine is



No, I don't know who the toothless old giffer is in the corner, either.



Don't you just hate it when you get an audience watching you play?

impressive, and should be put to use, and experimented with for a hundred other game ideas. It's fast, it's smart, it feels right when you build up speed, but the perfectionist nature of the gameplay and the fact that successfully negotiating the course often means slowing to a snail's pace detracts immensely from a racer which was so obviously full of potential.

A two-player mode is often the saving grace, but the split windows in this case are so small that you have even less time to see trouble before it's upon you. You can race against an computer opponent, but those aliens are irritatingly good. Too good, in fact.

A bit more playtesting and fine-tuning is called for, definitely, and maybe *Star Driver 2* will be the game we crossed our fingers for?

Zy Nicholson



Alien puddles seem to be very sticky.

VERDICT

AUTHOR: Stephen Lond Baker
PRICE: £7.95 (tape)/£9.95 (disc)
DISTRIBUTOR: Radical Software, 57 Lebrun Street, Kidbrooke, London SE3 9NS.

GRAPHICS 80%
Weird, certainly different and generally quite impressive.

SONICS 50%
Another one of those games its better to play with the sound off.

GRAB FACTOR 65%
The immediate hit is pretty good, but you need to be patient.

STAYING POWER 40%
But frankly, there are so many irritations, the fun doesn't last.

RATING 45%
Nice coding, shame about the game design.

WIZARD GAMES

1 NORTH MARINE ROAD, SCARBOROUGH, NORTH YORKSHIRE YO12 7EY. IF YOU'RE IN THE SCARBOROUGH AREA, COME IN AND SEE US. OPEN: Mon-Sat 9.00am-5.30pm, TEL: 0723 376586

4 MOST STUNTS	£3.99
BMX NINJA/STUNT EXPERTS/TURBOBIKE/MOUNTAIN BIKE	
4 MOST MEGA HEROES	£3.99
DANDY/CAPTAINS/SPACE TROOPER/FREDDY HARDEST	
4 MOST CUTE	£3.99
HOWARD THE DUCK/DANGER MOUSE/	
SAM WHOOPEE/ PUNCH & JUDY	
AIR BORNE RANGER	£2.99
ADDAMS FAMILY	£3.50
ARCADE FRUIT MACHINE	£2.99
ARCADE TRIVIA QUIZ	£2.99
CHIPS CHALLENGE	£2.99
DAN DARE 3	£2.99
DARKMAN	£2.99
EMPIRE STRIKES BACK	£2.99
FUN SCHOOL 2 TO 6 YEARS	£3.50
FUNSCHOOL 2 6-8 YEARS	£3.50
FUN SCHOOL 2 OVER 8 YEARS	£3.50
GAUNTLET 3 (128 ONLY)	£2.99
GEMINI WING	£2.99
JETSONS	£3.99
L.E.D STORM	£2.99
LAST DUEL	£2.99
MIG 29	£2.99
NARCO POLICE	£2.99
NAVY MOVES	£2.99
NINJA REMIX	£2.99
NORTH & SOUTH	£3.99
PIT FIGHTER	£2.99
PLAYDAYS 4-8YRS	£3.50
RAINBOW ISLANDS	£3.50
RETURN OF THE JEDI	£2.99
SWORD OF THE SAMURAI	£2.99
SNOWBALL IN HELL	£2.99
SHADOW DANCER/ALIEN STORM	£2.99
SOOTY & SWEEP	£2.99
SIMPSONS	£3.50
ST DRAGON	£2.99
STAR WARS	£2.99
TEENAGE QUEEN	£2.99
TERMINATOR 2	£3.50
TETRIS	£2.99
THOMAS THE TANK ENGINE	£2.99
TRIVIAL PURSUIT	£2.99
TURTLES	£2.99
WWF	£3.50

SALE OFFER ANY 3 FOR £6-00
PLEASE GIVE 1 ALTERNATIVE

DIZZY SPECIALS
DIZZY PANIC
BUBBLE DIZZY
SPELL BOUND DIZZY
MAGIC LAND DIZZY
DIZZY DOWN THE RAPIDS

ANY 4 FOR £5.00
Please order 1 alternative

CASSETTES OUR CHOICE MIXED TITLES 10 FOR £5.00

AMSTRAD DISKS

ARACHNOPHOBIA	£3.99
BONANZA BROTHERS	£5.99
CAPTAIN BLOOD	£6.99
CISCO HEAT	£6.99
COLOSSUS CHESS	£6.99
FOOTBALL MANAGER 3	£8.99
GX4000 CART - NO EXIT	£5.99
HERO QUEST	£4.99
HERO QUEST + RETURN OF THE WITCH LORD	£7.99
LOTUS ESPRIT	£6.99
MERCS	£7.99
MYTH	£7.99
NIGEL MANSELL	£8.99
NORTH AND SOUTH	£5.99
ROCK STAR ATE MY HAMSTER	£3.99
SUPER CARS	£6.99
VOL 1 (FRENCH INSTR)	£3.99
GHOST HUNTERS/PRO SNOOKER SIM/ PROFESSIONAL SKI SIM	
VOL 2 (FRENCH INSTR)	£4.99
SUPER STUNTMAN/VAMPIRE/ DIZZY/GRAND PRIX SIMULATOR	
KID SPECIALS	
SOOTY'S FUN WITH NUMBERS	£8.99
THOMAS THE TANK ENGINE FUN WITH WORDS	£8.99
BOTH AGE UP TO 7 YEARS	£15.00 FOR TWO

3" CLEANING DISK	£3.50
BLANK 3" DISKS EX SOFTWARE	10 FOR £7.99 OR £1 EACH
100 CAP 3½ - 3" DISK BOX	£5.99
PYTHON 1 JOYSTICKS	£9.99
ZIPSTICK	£12.99
CRUISERS	£9.99
COMPETITION PRO	£9.99
JET FIGHTER	£10.99

CASSETTE COMPILATIONS Any 2 for £6.00

MOVIE PREMIER £3.99
BACK TO THE FUTURE II/TEENAGE MUTANT HERO TURTLES/GREMLINS 2/ DAYS OF THUNDER

CHART ATTACK 3.99
LOTUS ESPRIT/TURBO CHALLENGE/SUPERCARS/SHADOW OF THE BEAST/IMPOSSAMOLE/GHOULS 'N' GHOSTS

MEGA MIX 4.99
OPERATION WOLF/DRAGON NINJA/REAL GHOSTBUSTERS/BARBARIAN 2

COIN OP HITS 2 4.99
DYNASTY WARS/NINJA SPIRIT/VIGILANTE/HAMMERFIST/ GHOULS 'N' GHOSTS

10 SPECTACULAR GAMES 4.99 (FRENCH INST)
IMPOSSAMOLE/ROAD RUNNER/FOOTBALLER OF THE YEAR/E MOTION/BUTCHER HILL/GARY LINEKAR'S HOT SHOT/NIGHT RAIDER/SIDE ARMS/STREETFIGHTER/SKATE CRAZY

QUATRO RACERS 2.99
BMX FREESTYLE/CHAMPIONSHIP JET SKI/ATV SIMULATOR/BMX SIMULATOR 2

QUATRO SUPER HITS 2.99
SUPERTANK/SUPER HERO/ SUPER STUNTMAN/ITALIAN SUPERCAR

COMBAT PACK 3 2.99
NINJA COMMANDO/BIONIC NINJA/ SPAGHETTI WESTERN/2088

COMPUTER HITS VOL 5 3.99
WIZARDS LAIR/212 AD/CONTRAPTION/KETTLE/ ATTACK OF THE KILLER TOMATOES

DIZZY COLLECTION 4.99
DIZZY/FAST FOOD/FANTASY WORLD DIZZY/TREASURE ISLAND DIZZY/ MAGICLAND DIZZY

CARTOON COLLECTION 4.99
DIZZY/CJ'S ELEPHANT ANTICS/SLIGHTLY MAGIC/SPIKE IN TRANSILVANIA/ SEYMOUR GOES TO HOLLYWOOD

POSTMAN PAT COLLECTION 3.99
POSTMAN PAT 1,2 + 3

POPEYE COLLECTION 3.99
POPEYE 1,2 + 3

KIDS PACK 1 4.99
POSTMAN PAT/SOOTY + SWEEP/COUNT DUCKULA/POPEYE 2/THE WOMBLES/ SUPER TED

KIDS PACK 2 4.99
FIREMAN SAM/COUNT DUCKULA 2/POPEYE/POSTMAN PAT 2/HUXLEY PIG/ BANGERS + MASH

COMPUTER HITS 4 4.99
BRIDE OF FRANKENSTEIN/SPINDIZZY/PULSATE/ ANTIRIAD/REVOLUTION/TRAXOS/ DEACTIVATORS/ UCHI MATA/CITY SLICKERS/STAR QUAKE/ELEKTRAGLIDE/DANDY

WIZARD PACK 1 3.99
(FRENCH INSTRUCTIONS)
CYBERNOIDS/NORTH STAR/EXOLON/ VENOM STRIKE BACK/ MARAUDER/HERCULES/DEFLEKTOR/BLOOD BROTHERS/RANARAMA/NEBULUS/MASK

WIZARD PACK 2 2.99
(FRENCH INSTRUCTIONS)
MOTOR MASSACRE/GARY LINEKAR'S HOT SHOT/ARTURA/MARAUDER/NIGHTRAIDER/ JACK THE NIPPER/TECHNO COP/BOUNDER/ SUPER STAR SOCCER/MONTY

INTEGRAL 3.99 (FRENCH INSTRUCTIONS)
LOTUSESPRIT/SUPERSCRAMBLE/SUPERCARS/ TOYOTA CELICA GT

THE NINJA COLLECTION 3.99
DOUBLE DRAGON/SHADOW WARRIORS/ DRAGON NINJA

SPORTS COLLECTION 3.99
PRO TENNIS TOUR/ RUN THE GAUNTLET/WORLD CUP ITALIA 90

RAINBOW COLLECTION 4.99
RAINBOW ISLANDS/BUBBLE BOBBLE/ NEW ZEALAND STORY

HOLLYWOOD COLLECTION 4.99
GHOSTBUSTERS 2/INDIANA JONES LAST CRUSADE/ROBOCOP/BATMAN THE MOVIE

2 HOT 2 HANDLE 4.99
SHADOW WARRIORS/TOTAL RECALL/GOLDEN AXE/SUPER OFF ROAD

POWER UP 4.99
ALTERED BEAST/RAINBOW ISLAND/X OUT/ CHASE H.Q./TURRICAN

GAME SET + MATCH 2 4.99
TRACK + FIELD/IAN BOTHAMS TEST MATCH/BASKET MASTER/SUPER HANG ON/NICK FALDO'S OPEN/CHAMPIONSHIP SPRINT/MATCHDAY 2/STEVE DAVIS SNOOKER

4 SOCCER SIMS
SOCCER STAR
STRIKER
INT TENNIS
BANGER RACING
GRAND PRIX SIM
1ST DIVISION MANAGER
THE BOXER
LEAGUE FOOTBALL
INT FOOTBALL
RUGBY COACH
PRO TENNIS
FIRST PAST THE POST
WEL LE MANS
MATCH POINT
J KHAN SQUASH
WRESTLING SUPERSTARS
GRAHAM GOOCH
KENNY DAGLISH MANAGER
NIGEL MANSELL WORLD CHAMP
PING PONG
4 MOST SUPER SPORTS
US BASKET MASTER/CRICKET
INT/ KENTUCKY RACING/
CHAMP SPRINT
4 MOST BALLS BOOTS + BRAINS
AUSSIE RULES/RUGBY BOSS/
SOCCER CHALLENGE/
SOCCER BOSS

ANY 3 SPORTS GAMES £5.00 + P&P PLEASE GIVE 1 ALTERNATIVE

GAMES SUBJECT TO AVAILABILITY. PLEASE NOTE - A PHONE CALL RESERVES YOUR ORDER.. CHEQUES + POSTAL ORDERS MADE PAYABLE TO WIZARD GAMES
OVERSEAS £1.00 PER ITEM P+P. ORDERS £5 AND UNDER ADD 50P P+P

Access

(0257) 421915 O.J. SOFTWARE (0257) 421915

VISA

Fast Friendly Service

ADVENTURES

	DISK
Acheton	£12.95
Avon (with Murdac)	£15.95
Countdown to Doom	£15.95
Giant Killer (Maths Adv)	£15.95
Kingdom of Hamil	£12.95
Last Days Doom/Hezarin	£15.95
Myth (Role Play)	£6.99
Philosopher's Quest	£12.95
Spysnatcher	£12.95

ARCADE

	CASS	DISK
Alien Storm + Sh Dancer		£12.95
Back to the Future II		£6.99
Dizzy Crystal Kingdom		£8.50
Dbl Drag III + Rodland		£12.95
Double Dragon		£6.99
G - Loc		£6.99
Galactic Games		£6.99
Midnight Res + Nightbreed		£6.99
Mystical		£6.99
North & South		£13.95
Pacland		£7.99
Paperboy II		£12.95
Pop Up		£6.99
Prehistorik II	£9.50	£12.95
Rock n Roll		£6.99
Rodland + Dbl Dragon III		£12.95
Spherical		£6.99
Strider II + UN Squadron		£6.99
Super Cauldron		£12.95
Super Space Inv + Pit Fighter	£4.99	£9.99
Teenage Turtles	£3.75	£6.99
Turtles The Coin Op	£4.99	£9.99

SPECIAL OFFER DISKS

All Disks Boxed With Instructions

Bonanza Bros	£2.99
Incredible Shrinking Sphere	£2.99
Monty Python	£2.99
Monopoly	£2.99
New York Warrior	£2.99
Off Shore Warrior	£2.99
Wild Streets	£2.99
Captain Blood	£3.99
Cisco Heat	£4.99
Light Corridor	£4.99
Sporting Triangles	£4.99

DISK COMPILATIONS

		DISK
CLASSIC 4 GAMES	Draughts, Chess, Backgammon, Bridge	£8.95
MINDSTRETCHERS	Monopoly, Scrabble, Cluedo	£12.95
SOCCER MANIA	FMngrII, FMngrWCup, Gazza, MProse Socc	£15.95
	CASSETTE COMPILATIONS	**CASS**
CHART ATTACK	Sh Beast, Sup Cars, Lot Turbo, Gh & Ghost, Impmole	£6.99
DIZZY COLLECTION	Dizzy, Fast Food, Tr.Island, Magicland, F.World	£8.50
DIZZY EX. ADVENT	Dizzy Panic, KwikSnax, S/bound, Yolk Folk, Rapids	£8.50
DREAM TEAM	Terminator II, Simpsons, WWF Wrestlemania	£6.99
HANNA BARBERA	Yogi Esc, Ruff & Ready, Top Cat, H.Kong Phooey	£4.99

STRATEGY/SIMULATION

	CASS	DISK
Cluedo		£6.99
Colossus 4 Bridge	£3.75	£4.99
Colossus 4 Chess	£3.75	£7.95
Football Manager II	£3.75	£6.99
Football Manager II + Exp Kit	£4.99	£9.99
Football Manager III	£4.99	£9.99
Football Manager World Cup	£4.99	£6.99
Monopoly	£2.99	£2.99
Sporting Triangles	£3.75	£4.99
World Class Rugby		£12.95
W.Cup Italia 90 (Not CPC+)		£6.99

ACCESSORIES

AMX Mouse & Interface	£34.95
AMS FD1 2nd Disc Drive	£59.95
MP1F/2F 464/6128 to Scart TV	£19.99
Cassette Alignment Kit (inc. Game)	£7.95
Cassette Lead (with REM Conn)	£3.95
Disk Drive Cleaner 3"	£5.95
Disk Drive 3.5" + Romdos 6128	£79.95
Disks 3"	5: £12.50 10: £23.95
Disk Drive 3" Ex Games	10: £12.99
Kboard Ext Leads	464: £8.95 6128: £9.95
Kboard Ext Leads 464+/6128+	£9.95
Printer Cable CPC 1 Mtr	£8.95
Printer Cable CPC+	£7.95
Joystick Splitter	£2.99
64K Memory Expansion 464	£29.99
System Disk 6128+	£11.95
System Disk 6128 (Sides 1&2)	£9.95

BUSINESS/UTILITIES

	DISK
Advanced Art Studio 6128	£19.95
Adv Art + AMX Mouse + M Mat	£54.95
Adv Art Studio - Col Dump3	£29.99
Amstrad 6128 Rom Chip	£14.99
Basic Idea (Basic Tutorial)	£14.99
Colour Dump 3 (Col Scr Dump)	£15.95
Crash Course Typing Tut 6128	£20.95
D.E.S. ROM Version	£24.99
D.E.S. Disk Version	£14.99
Discology (Disk Utility)	£8.99
Mastercalc 128 (128k)	£27.95
Masterfile III (128k)	£29.95
Maxam Assembler/Dissassembler	£23.95
Microdesign + DTP for 6128	£29.99
Microdesign + AMX Mouse	£59.99
Microdesign Extra	£14.99
Micordesign Maps UK	£14.99
Microdesign Maps World	£14.99
Mini Office Original Cass Only	£2.99
Money Manager (+PCW)	£24.95
Paradox Rom	£14.99
Proprint ROM £24.99	£15.99
Protext CASS £16.95	£21.95
Protext CPM (6128)	£51.95
Prospell	£20.95
Protype (Print Enhancer)	£23.95
Soft Lok Tape to Disk Transfer	£14.99
Tasword 6128	£24.95
Tas-Spell (For Tasword)	£20.95

EDUCATION

	CASS	DISK
Fun School I Under 5		£8.95
Fun School I 5-8		£8.95
Fun School I 8-12		£8.95
Fun School II Under 6	£3.99	
Fun School II 6-8	£3.99	
Fun School II 8+	£3.99	
Fun School IV 5-7	£10.95	£13.95
Fun School IV 7-11	£10.95	£13.95
Playdays 3-8	£10.95	
Shoe People 4-6	£5.99	
Lets Play with Words 4-8	£12.95	£12.95
Fun with Words 7-	£8.50	£11.95
Read Right Away 1 5-8	£9.95	£12.95
Read Right Away 2 6-9	£9.95	£12.95
Read Right Away 3 7+	£9.95	£12.95
Better Spelling 9+	£8.95	£12.95
Lets Play Numbers 4-8	£12.95	£12.95
Lets Play Money 4-8	£12.95	£12.95
Primary Maths 3-12	£24.95	£24.95
Fun with Numbers 7-	£8.50	£11.95
Target Maths 6-13		£12.95
Micro Maths 11+	£24.95	£24.95
Better Maths 12-16	£8.95	£12.95
Mega Maths 15+	£24.95	£24.95
French Mistress 11+		£16.95
German Master 11+		£16.95
Spanish Tutor 11+		£16.95
Micro English 8-Ad	£24.95	£24.95
Granny's Garden 6-10 (6128)		£19.95
Dragon World 6-10 (6128)		£23.95
Giant Killer Maths Adv 9-14		£15.95
Answer Back Quiz 6-11		£11.95

JOYSTICKS

AMSTRAD JY2	£6.99
CHEETAH Bug	£13.95
KONIX Speedking	£11.95
KONIX Navigator	£13.95
QUICKSHOT Python 1	£10.95
QUICKSHOT Python 1 Microswitch	£11.95
ZIPSTICK Super Pro	£14.95

PRINTERS

All printers listed below are suitable for use with AMSTRAD CPC, CPC+, ATARI ST, COMMODORE AMIGA, IBM PC & COMPATIBLES

When ordering please state computer

PANASONIC KXP1150	£144.95
STAR LC100 9 Pin Mono/Colour (Inc. Colour/Mono Ribbon + Colourdump 3)	£169.95
STAR LC24-100 24 Pin Mono	£189.95

All prices include cable & delivery

PRINTER RIBBONS

Quantity:	1	2	5
DMP 2000/3000	£3.75	£7.00	£16.25
CITIZEN 120D	£3.95	£7.50	£16.25
KXP10/1180	£3.75	£7.00	£16.25
LC10/20/100	£3.75	£7.00	£16.25
LC24-10/20/200	£3.95	£7.50	£17.50
KXP1124	£3.75	£7.00	£16.25
LC10/100 Colour	£8.95	£17.50	
LC200 Mono	£4.95	£9.50	
LC200 Colour	£11.95	£22.95	

Other printer ribbons please phone

RIBBON RE-INK £12.95

BUDGET CASSETTES £3.75 EACH

Chuckie Egg	Colossus Chess
Continental Circus	Dizzy Kwik Snax
Dizzy Magicland	Double Dragon
Double Dragon II	Driller
F15 Strike Eagle	F16 Combat Pilot
Football Manager	Football Mngr II
Golden Axe	Gunship
International Tennis	Matchpoint
Myth	Nightbreed
Puzznic	Quattro Cartoon
Quatro Fantastic	Rick Dangerous
R - Type	Rodland
Scooby Doo	Seymour WWest
Soccer Double 2	Soccer Double 3
Spitfire 40 + Strike Force Harrier	
Slug the Slug	Streetfighter
Teenage Turtles	Test Master
Trivia Quiz	Turrican
Turrican II	WWF Wrestle

HOW TO ORDER:- ACCESS/VISA TEL OR FAX (0257) 421915 MON-FRI 8.30 -17.30 SAT 8.30 - 12.30
BY POST:- LIST ITEMS REQUIRED. MAKE CHEQUES/PO'S PAYABLE TO O.J.SOFTWARE.
SEND TO O.J.SOFTWARE, 273 MOSSY LEA ROAD, WRIGHTINGTON, NR WIGAN, LANCS WN6 9RN.
POSTAGE:- UNITED KINGDOM, ORDERS OVER £5.00 POST FREE (ORDERS UNDER £5.00 ADD 50P).
POSTAGE:- OVERSEAS (AIR) ADD £1.00 PER ITEM SOFTWARE (PAYMENT BANK DRAFT/CREDIT CARD)